The Greatest Engineer in the World—*by* Dave Martin

# RAILROAD STORIES

FEBRUARY 15¢

ALL COMPLETE

## THE SILVER CROSS

*Novelette by E. S. Dellinger*

FICTION—FACT ARTICLES—PICTURES

FEB. 1935 RAILROAD STORIES 15¢

# NOAH WEBSTER
## thought that COLDS were caused by COMETS

Master scholar, compiler of the great dictionary, Webster was among the first to inquire into the baffling causes of that private and public menace —the common cold.

His conclusion that colds were due to the fearful plunge of meteors through the sky was far from the truth, but no less distant than that of other savants who assigned colds to the bite of bedbugs, and to "sitting in cold, damp churches." (Dr. Thomas Haynes, 1789.)

For centuries, hundreds of absurd theories as to the cause of colds were advanced only to be sharply exploded. But now one has been presented that Science has generally accepted. This is the filtrable virus theory.

Research men say the bacteria of this virus are so small the microscope cannot see them, so tiny they cannot be trapped by the most selective filters. Only by their harmful effect on the human body can their existence be established. With such a virus, scientists have repeatedly inoculated others with one person's cold.

### *At the first sign of a cold*

Granting that colds are due to a virus that enters the mouth, nose and throat, is it not a wise precautionary measure to use a good antiseptic to fight such bacteria? Is it not wisdom to keep the oral cavity clean and healthy? Noted physicians tell us that it is. Millions of people find that it is.

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FEBRUARY, 1935
Vol. XVI, No. 3

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OR INSTALLING LOUD SPEAKER SYSTEMS
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THAT'S HIS I'VE MADE THIS WEEK IN SPARE TIME
THANKS!

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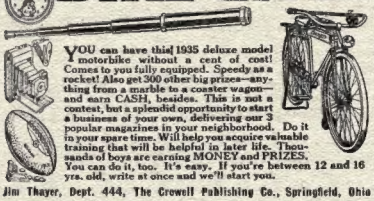

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Dr. T. J. Rastelli

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Dr. T. A. Ellis

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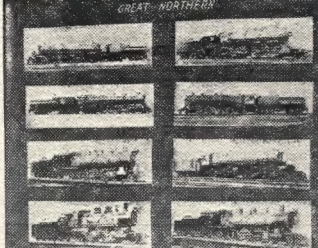


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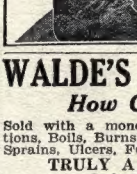

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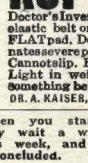

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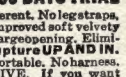

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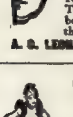

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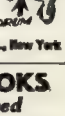


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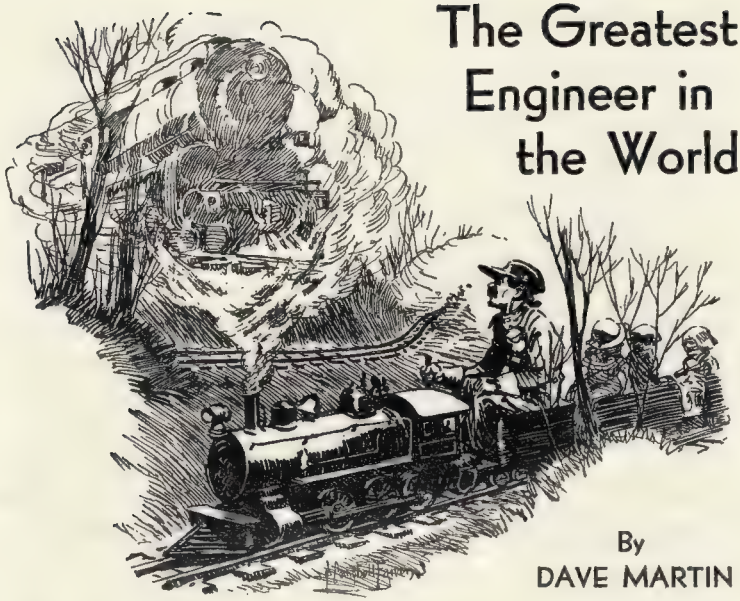
Railroading in the Canadian Rockies—The East and Westbound "Dominion" of the Canadian Pacific Meeting at Yoho, B. C., on the "Hill," between the Famous Spiral Tunnels

# The Greatest Engineer in the World



By
DAVE MARTIN

THE pig mauler shoves in hard on his throttle, yanks the reverse lever back and shrills out a call for brakes that wakes up the hills. The big drag is racing over the rails and catapulting downhill into town like a bat outa hell.

But keep your shirts on, fellers. Don't even get excited. We ain't gonna pile 'em up or spread 'em out over the landscape. No siree, we're just gonna stop for a little water.

That whistle sure gets a lot of action. Y'oughta see them shacks get a gait on when they hear it.

End man shoots outa the crummy cupola like he had dynamite in his britches and races over the reeling car roofs. Head pin tears back over the tank like he'd heard his mother-in-law was coming to stay for the summer, shins up a side ladder, and hot-foots along the running boards.

Both of 'em bucking the wind, twisting brakes, cussing the hogger. What about? Who knows? Who cares?

When the string finally does jerk to a stop, darned if the old kettle ain't a good ten car lengths ahead of the water tank. Something's gonna pop now, you watch.

Out of the cab window comes the head of the hogger, madder'n a wet hen. He glares wild-eyed at the shacks.

"Say, whatsa matter, you pinhead?" he bellows. "Cancha twist down a few brakes same day I blow the whistle?"

"Didja ever try blowin' your old whistle the same day you wanna stop?"

This comes from one of the shacks on a car roof. "Whatcha 'spect, high-ballin' twenty-five loads down that hump thirty miles an hour? Whatcha reckon we are, coupla steam winches?"

The hogger's got on a hard-boiled hat. He jerks this off and rams his fist through the crown. "Well, whatcha gonna do about it? Gonna tote that tank up here, or have I gotta back this whole train up hill to it?"

"Better slack back a little this time," the other brakie hollers. "Nex' time you make a bum stop we'll back the water to you—in an eye-dropper."

Then everybody laughs and begins kicking off brake dogs. Yes, there's a brake wheel on the engine tank, too, in those days.

No, this incident didn't happen yesterday. It occurred more than sixty years ago, when I was a kid ten years old. I'm seventy-two now. But in my mind's eye I can still see that dirty, asthmatic, diamond-stacked Rogers snorting back and forth trying to get her mouth under a water spout for her daily drink.

Finally some smart hogger discovers a way out of the "defugalty." Stop a few car lengths back of the water tank, uncouple the iron horse. Then filling up's easy.

BACK in those days, whenever I heard the local's one long whistle for our town, I started running as fast as my skinny little legs could travel. You know that train wouldn't get in and out of Woodbury unless I was on hand to oversee things. We met at the water tank.

That sooty, greasy, wheezy engine was the marvel of all creation to me. I gawked at her google-eyed till I knew by heart every sag and hump and dent in her rusty, battered, old jacket.

And that day of all days when the engineer let me climb up in the cab, heaven came right down to earth at once. Of all the shiny doodads, dials and gadgets! I was told about steam gages, water glasses, gage cocks, injectors and blowers, but it was too much for a ten-year-old's head to absorb in a single lesson.

"Are you gonna be a railroad man when you grow up?" the engineer asked me.

How clear to me still is his homely, honest face across the span of years! Nose with a red plum on it and whiskers like General Grant, only streaked with tobacco juice. But to me he was a king; the cab was the court chamber; his seat box was the throne.

"Yes, sir," I told him in an awed, fluttery little voice from my perch in front of the fireman, "an' I'll run an engine 'zactly like this." Then, in a surge to the surface of boyish heart hunger, I bubbled over. "Gee, Mr. Engineer, I gotta three-bladed jackknife I'll give you if you'll let me blow the whistle just oncet."

I never blew the whistle but I did ring the bell, and I kept my knife too. I rode in the cab while we kicked a box car onto a sidetrack.

My heart oozed out through the soles of my feet when I climbed down and bade that old engine good-by. Two short whistles and she was off. Through the mist in my eyes I watched her until the caboose disappeared around a curve in the track. But that little stab of sorrow had its balm, and I was happy again.

To every kid in the town I was a hero. To them I was a superior being. I knew all about engines. I could hear them telling each other: "Billy Jones rode in the engine," and "Billy Jones rung the bell," and "Billy Jones is go-

ing to be a reg'lar engineer when he's a man."

And that wasn't all of it. We'd sit on a tie pile beside the hand car shanty. A ring of kids were around me; eyes bugged out like hickory nuts on a limb.

"Fellers," I'd tell 'em, "I'm gonna be the greatest engineer in the world. You watch. I'm gonna run the finest and fastest train. I'll have the biggest and strongest engine. I'll call her 'Shootin' Star' because they're the fastest things there is.

"I'll run her at night, pitch black ones, and in storms too, 'cause you know the mail and the passengers have gotta go. I'm sittin' up in my cab like this." Then I'd show 'em how engineers sit and act. And I'd tell 'em:

"Kids, this is the fast mail, and I'm runnin' 'er right on the dot. My throttle's wide open. Wheels turnin' like lightnin' — sixty — seventy — eighty miles an hour. Headlight's scoopin' a white hole outa the dark. I'm leanin' out the cab winder watchin' the track flyin' back at us. We tear over crossin's just like nothin'. We flash past signal lights, *zip-zip-zip*. We fly through towns, never slack speed, and the whistle screamin' like the mischief."

By this time every kid was reeling and lurching, and they were all right up in the cab with me. And I said: "Wind's cuttin' my face like a whip but I gotta keep my eye glued on that track. Thousand innocent passengers back in them coaches. Every last livin' one of 'em's trustin' the engineer."

Right there that smart alec, Fatty Robinson, horned in. "How about the fireman, Billy? He looks out his winder too, don't he?"

But I shut him up might quick. "Firemen shovel coal. They ain't got time to look out winders."

"Even my whistle'll be different," I announced, "so when I cut loose with a *whoo—oo, whoo—oo,* everybody'll say: 'Here comes Billy Jones.'"

RECKON I was bit pretty bad by the railroad bug. I raced along the road trailing a rope till I was skinny as a snake. I was the engineer, also the engine of this fast freight. The rope was my string of rattlers. The knot tied in the end of it was the caboose.

Neighbors finally began to think the Jones kid was only about one flag stop from the goofy house. The family grindstone and the old sewing-machine got a lot of exercise. I'd turn everything that had a wheel, making believe I was going places.

As I grew older I pored over every book on railroads and railroading I could get hold of. I devoured timetables in railway folders until I knew darned near every railroad and its stations in the United States and Canada. In those days there was no International Engine Picture Club, but I wish there had been.

A corner of the granary was my workshop. Here I made model engines and cars out of wood with my three-bladed jackknife and a gimlet. I created switching problems and solved them. I studied cylinder dimensions, steam pressure, drive-wheel diameter and tractive force and their related influences.

Like Abraham Lincoln, when my time comes I want to be ready. At last I took the first real step in my great career. I went to work in a railroad roundhouse. My job was wiping engines.

"It won't be long now till I'm out on the road," I thought. "Here in the roundhouse I'm up against the real things—smoke, soot, steam, hot grease

and countless locomotives. It's where the engines go to bed."

Long lean passenger greyhounds with drivers higher than my head; built for speed, those babies. Snub-nosed freight hogs, little wheels, squat on the ground; made for heavy hauling. Diamond and straight-shot stacks, with every one poked under a grimy smoke funnel.

A couple of immense, brand new passenger Compounds just arrived from the Rhode Island Locomotive Works. I couldn't stand flat-footed and reach to the top of their drivers. I stood by and watched 'em and said:

"I'll bet they'll make a hundred miles an hour look like standin' still. Them's the kind I'm gonna run some day."

If either of these Compounds were in the roundhouse when the noon whistle blew, I'd be up in the cab of the monster with my dinner pail on the right-hand seatbox every time.

Every day there was a big trip somewhere. I'd swing her reverse leaver forward, ease out her throttle a notch at a time, and we were off. 'Course she was stone cold and had blocks under her wheels but I was going places just the same. All I had to do was pull my cap on tight, lean out the cab window and watch us swallow up the track. Talk about the guy with the seven-league boots. We were making his best time look like backing up.

Here comes a road crossing signal post flying at us. I reach up to the whistle cord and give her a beautiful two longs and two shorts. Not a sound to a soul but me. I hear the blasts all right.

Then a station post flashes past. I take a look down the track. "Aw, that's only Winnipeg or Omaha. They're just flag stops for this train." So we tear through town at 90 m.p.h. Everybody's down to the depot to see the flight of the Limited and Engineer Billy Jones.

When I shove in the throttle at the one o'clock whistle, we're in San Diego or Vancouver. I climb down out of the cab with my long-nosed oilcan and feel for hot bearings with the back of my knuckles like real hoggers do.

Next day I gotta bring her back from San Diego or Vancouver and put her in the roundhouse again. It's great practice for the real runs I'll be making some day.

GRADUALLY the roundhouse gang began thinking the Jones wiper was cuckoo. Poked all kinds of fun at me. They'd make a call board with chalk on the house wall. Then they'd write my name in this as engineer on First 102. That was the crack passenger train of the road.

"Let 'em laugh," I'd say to myself. "Some day I'll be pulling the throttle on this same 102 and these smarties'll be in the hole watching me zip past."

The hostler was a fine guy named Harry. He sure savvied engines but he never went out on the road. Harry brought engines into the roundhouse off what was called the house track. At first I thought hoggers were either pretty independent or absent-minded because they always left their engines on this house track. But the real reason was they all liked Harry and left the hogs outside so he'd have a job.

I helped Harry fetch the engines into the roundhouse and put 'em to bed. That is, I'd get in the pit and pull the fire, skin up on top and the sand dome, help shove the turntable, and block her drivers when the stack was under the funnel. Harry did all the rest.

Summer waned and fall came.

Roundhouse air was alive with a new activity. Older wipers were sent out firing engines on grain trains. Call boy running his legs off rustling crews for extra freights. Chain gang enginemen—them's the "first in, first out" boys—doing something awful to that old pay car right now. Most of 'em taking out a drag, doubling right back to find another run waiting 'em.

I'm thinkin': "I'll surely get in on some of this." Noontimes now I'm up in any old engine shaking a shovel at the black diamonds so I'll have the swing of the thing when I'm called.

Finally I miss a wiper who is younger than me on the job. And whacha think? I see the big ham's name stuck up on the board as fireman on an extra run!

Do I blow up? Say, I slam my handful of greasy waste so hard in the oil pail it almost dents the bottom of the bucket. In nothing flat I'm up in the office of the big gazeek. First question I pop at him is:

"Does seniority apply to a wiper?"

"Sure," he tells me. "Seniority applies to everybody except old Buck, the sweeper, and the roundhouse cat."

Then I trot out my grievance. The whole thing's been an oversight, and I'm sent right up for examination. *At last I'm on my way!*

Everything's fine so far. I'm hard as nails and tough as whalebone physically. Only one more river to cross—the eye doc. He hands me a strand of yarn from a skein and tells me to match it for color. This is a leap-pipe cinch. I spot the yarn's mate and hand it to him. He looks at me hard and shakes his head.

Great guns! I've missed. I try again and again. It looks easy. But I muff every chance.

To me, it's so awful I don't want to talk about it. Every dream of my life shattered; knocked flat as a toppled house of cards. At the end of the eye test I reel out of that room with words of doom ringing in my ears. I'm hopelessly color blind. All I can think of in that jumble is, that I'm a washout, a failure—an engine all steamed up with both cylinder heads blown out.

In a daze I wander off into woods back of the shops. I couldn't stand to see any of them hateful, smirking roundhouse smarties. They'd know I'd hit the skids. Prone on the ground I fight it out alone.

"I'll never run an engine," I keep repeating to myself. It's like a sentence of death to me. To lots of fellows running an engine is just a job; but to me it was the one thing about which everything else in life centered. And hard luck snatched that away.

At last my thoughts begin to clear, like mist in a marsh before the beams of the sun. Somebody's gotta wipe engines. That somebody's me. I'll march back to that roundhouse and get on the old job. I'll say nothing and saw wood.

If I can't run an engine I can revel in grease, in soot, smoke and steam. If I can't ride into a boy's heaven in a flying engine cab I can still peek into my lost paradise through the cracks in the fence.

FORTY years later I'm still toting the waste and the oil pail—still wiping engines. The snow of age has silvered my hair. The weight of years has sagged my shoulders. Boys at the roundhouse now call me "Old Billy, the boss wiper."

I tell 'em: "If you're only wipin' engines, wipe 'em right. You hoggers got them little signs in your cabs before your eyes 'Be sure you're right,

then go ahead.' Well, that's how I wanna wipe engines."

In these forty years I've seen the boys come and go. I've watched 'em grow up and grow old in the service of this railroad. I've waved 'em the high sign as they started out smiling on that last one-way run—from which they never came back.

Seen a lotta changes, too, in the motive power about this ancient roundhouse. From the little vest-pocket eight-wheelers of my young days, I've seen 'em grow into the giant articulated Compounds with as many wheels under 'em as a caterpillar's got legs.

Me and the engines have grown old together. I've watched 'em being broken in brand new. Seen 'em go to the back shop for overhaul. Eyed 'em, through a mist, finally being shunted down a long sidetrack to that last great locomotive graveyard known as the junk pile.

There they stand, winter and summer, rain and shine, a long funeral procession of weary, worn-out iron horses —pathetic reminders of a period that has passed. Each one has stencilled on its cab "Vacated from Equipment Roll" and the date it hit the cemetery. That little notice is the old girl's epitaph.

Wouldn't be so bad if they'd just leave 'em in peace. But they leave 'em in pieces. Every time a side rod or eccentric is wanted down they go to the engine burial plot and tear an arm or leg off a corpse. It's a sin and a shame, so it is.

Of course, I'm just a foolish, sentimental, old has-been, or never-was. I love to steal down to that graveyard of rusting iron and rotting wood and sit in the bare cabs of those half-stripped engines.

Plain as day I hear floating up to me the long cry of "Boa—ard." A dozen car-lengths back I can see the shadowy outline of a "con" in uniform waving me the highball.

I tug at her creaky, rusty, protesting old throttle. I feel her quiver all over as the steam seeps through her system and warms her old bones. She moves. At first uncertainly, like an aged crone limping on a stick. Then she slips away down the rails.

We're off. Out of this limbo of ghost locomotives, back to that past of pristine engine glory we go. What a grand and glorious ride! Down the line, r u s h i n g, roaring, shrieking through the country, ninety miles an hour, a long string of "varnished wagons" trailing behind us. Mail grabbed and kicked off on the fly. Everything on the road spotted in the hole as we flash past. Man, oh, man, I just don't want to wake up!

And when I do open my eyes, dog gone it, we ain't budged an inch. Of course I knew we wouldn't, 'cause the girl is short her side rods and both cylinder heads. She's just junk. And I think, maybe that's why I come down here. Birds of a feather— That's about all I am, *junk*.

I KEEP thinking that I'm junk till the great day the Brass Collar calls me over on the carpet. That Big Boy's one swell guy. But I was right here on this job 'most before he was born.

There I am standing before him and he's sizing me up from behind a big desk. I ain't done nothing I shouldn't, but I'm getting an awful funny feeling just the same. Seems like somebody's jacked me up, taken my legs from under me and left me standing on nothin'. All I can see is that long string of junk engines and me in the line.

"That Last Great Locomotive Graveyard Known as the Junk Pile." Photo by Geo. V. Hartman, 2331 Park Blvd., Oakland, Calif., Who Writes: "This Old Abandoned Union Pacific Engine Sets Out among the Sagebrush in Oregon. Evidently She Was Not Equipped with Air Brakes, as There Is No Sign of Pump or Air Hose. Her Main Rods Were Lying in the Tender. I Wonder What She Thinks Out There Alone in the Desert, and Where Are the Hands That Once Pulled Her Throttle?"

"And why not," I tell myself. "You can't go on here forever. The engines don't. The old, the decrepit, the worn out among humanity are stencilled 'Vacated from Equipment Roll,' same as the engines. That's life."

Then I hear the Big Boy spieling: "Billy, how long have you waited to run an engine?"

I can feel the bad news coming. "All my life," I tell him.

Then he pops at me quick: "How'd you like to run a real, honest-to-goodness, smoke-spouting, steam-spitting, passenger locomotive?"

I start for my bandanna to wipe the cold sweat off my bald spot. I'm thinking I'd better start talking 'fore the cat gets my tongue, so I sail in.

"If you're pokin' fun at me, Mr. Thoms, please let's josh some other way." I'm giving him my old roundhouse grin but I'm eyeing him in earnest.

"But I'm not poking fun at you, Billy," says the Big Brass Hat. "I mean every word I'm saying. You can throw a reverse lever, can't you?"

I'm nodding the old bean.

"And you can read a steam gage, work an injector, ring a bell, jerk a whistle cord and pull a throttle?"

To this string of questions my head's wagging answers like it's on a hinge. "Sure, Mr. Thoms, I've ran an engine a million miles, but it's all been in my dreams."

"Well, you can wake up now," says he. "You're a real hoghead with a regular run from today on. Come on, I'll introduce you to your new battleship and string of passenger coaches."

But I just stand there like a gilly and gawk at him. Maybe I'm afraid that if I move I'll find it's only another dream. "You—you know my trouble, Mr. Thoms? You know why I've spent my life in the roundhouse? Did you know that I can't read signals—that I'm color blind?"

"Don't worry about that, Billy. I'll fix everything for you." And he did.

SO here I am running a Tom Thumb train on a miniature railway at an amusement park. 'Tain't 'zactly like the

great wheeled greyhound fleeting across country with a dozen Pullmans that I dreamed of running when I was a kid. But she's a real little engine and she suits me. You know, after Life's kicked you in the seat of the pants for half a century, it don't take so much to satisfy you.

In a sense this railroad's distinctive. It's strictly a one-man road and I'm the man. I'm the section crew, train dispatcher, fireboy, engineer, brakeman, conductor, hostler, wiper and car toad.

Only one station on the entire system, too. That's where all the kids pile on and off. But I've got that track strung out clean across the country. And it's a scenic system. We got the Royal Gorge, the Grand Canyon, the high Sierras—and that whole mile of tin rocks down yonder with a sign on it that says: "Don't kiss your girl in this tunnel." That's the Moffat Tunnel.

I collect the kids' tickets, ring the bell from my seat back on the water tank, and as we pull out I holler: "Goodby, old New York." When we come around to the same spot again I make a regular passenger train stop—just ease 'em up to the platform. Then I yell: "San Francisco. Last stop! Everybody out."

This makes a hit with the kids, and that's what I'm here for. I've loved kids all my life. I'd planned a lot of things like marriage, a home and a family. I'd even figured out a little whistle toot for the end of the run so the folks 'd know dad was comin' home.

Them dreams all went with the others, 'cause— Well, shucks, I ain't kicking, but you can't do a whole lot on a wiper's wages.

After the last trip's made I run my iron Shetland pony in her stall for the night. Then I sit down all alone for a long while and admire the little rascal. She's the banty rooster of the engine family. Got everything her big sisters have 'cept size . . .

*AND that's the way they found the old man when he failed to take out his train. He was sitting in a corner of his tiny roundhouse, facing his engine, smiling in his sleep. And speeding across the vast reaches of infinite space, at the throttle of some celestial locomotive, was the freed soul of the greatest engineer in the world.*

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# "My Engine!"

BACK in the late Eighties Baltimore & Ohio firemen working out of Chicago were getting tired of spending so much of their time off duty polishing brass; consequently, they organized a grievance committee and made arrangements for a conference with the general superintendent of motive power the next time he was in Chicago. In those days each engineer was assigned a regular locomotive, and naturally he tried to take very good care of it. Some even spent their own money putting on extra brass plating. One engineer, whom I'll call Jim Purcell, was operating a regular passenger run out of Chicago with No. 92. His pride in this locomotive was his besetting sin. Being a wealthy man, he could afford to lavish a great amount of money dolling her up. Wherever possible, he installed brass and even paid his fireman extra money to keep this brass polished. His was the grandest locomotive running into Chicago. She was envied and talked about a great deal by engine crews of all railroads running into the same station.

However, when the firemen's grievance committee was in conference with the general superintendent of motive power it did not inform him of the real motive (which was to get out of the job of polishing brass), but told him the men wanted more money. The superintendent said he did not think they were justified and pointed out that the men on the Pennsylvania and the Lake Shore & Michigan Southern were getting the same rate of pay and seemed to be satisfied. The grievance committee then submitted the fact they had more brass to polish than the firemen of the other lines, which duty required three to four hours before leaving on their runs. The superintendent then suggested they discontinue the brass work on the locomotives. That was just what the committee wanted, so before the meeting was over it was agreed that all the brass work except the bell would be painted black.

The superintendent did not live in Chicago, and did not know how old Jim Purcell loved the 92. Furthermore, if he did know, it would not have made any difference. When the roundhouse foreman was instructed to have the painting done he asked if this order included the 92. The superintendent replied that the order was given for all engines, and added that he did not see why any exception should be made for the 92.

It was a hot afternoon in July when the painters got busy. They started on the 92. Eight or ten of the firemen gathered around the roundhouse to watch the fun. Someone delivered the news to Jim Purcell. Jim lost no time getting to the roundhouse. When he arrived, coat in one hand and straw hat in the other, there on the outgoing track stood the 92, with two painters just about to daub up the flag holders.

Something happened to old Jim. He ran for the master mechanic's office, nearly knocking the hinges off the door getting in. With the master mechanic sat the general superintendent of motive power. Jim had now a full head of steam and was about ready to pop, but seeing the big boss, he cooled down somewhat. On being asked if this was the way he usually came into the master mechanic's office, Jim answered no, but added that something terrible was going on! "They are painting the brass work on MY ENGINE black!"

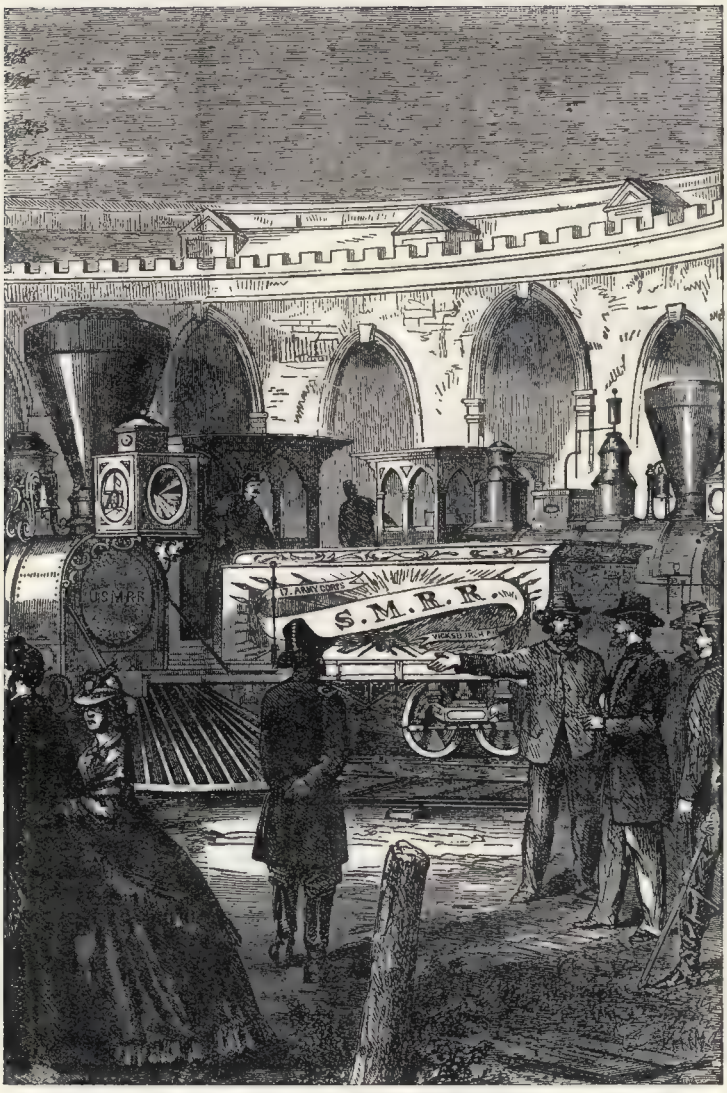
Realizing the situation, and being a real railroader, the super said "You don't mean to tell me that someone is painting the brass work on YOUR ENGINE black, without your knowledge? Let us look into it."

The three of them started down towards the outgoing track. When the 92 was in sight. Jim pointed to the painters on it and yelled, "There is MY ENGINE, with all the brass work painted black."

The superintendent feigned surprise, saying: "Oh, this is the engine you were referring to, Mr. Purcell? Let me show you something." Walking around to the tender, he pointed to the letters on it. "Do you see those letters? Well, they stand for Baltimore & Ohio, and this engine is the property of the railroad. Furthermore, I am the man who ordered the brass work painted black."

Old Jim's grief was heart-breaking, and for two years thereafter he never talked to any of the firemen who were on that grievance committee.—Elmer F. Miller.

Locomotives of the United States Military Railroad,




*Old print in collection of F. M. Westing, 51 High St., Jersey City, N. J.*

**Built at Vicksburg, Miss., by Union Troops in the Civil War**

**OUR railroads are up against it. Although they have developed the cheapest transportation the world has ever known, they are being bled by competition which is both inefficient and costly—the competition of trucks and busses. This sounds impossible, but it is true. The facts are plain, and they do not lie. Even if highway transportation may cost less in the beginning, it costs infinitely more in the long run. In this and other articles we are showing you why this is so.—The Editors.**

# You Pay More to Ship by Truck

## By GEORGE L. PHILLIPS

NEXT time you happen to go near a railroad main line track, stay there and wait for a loaded fast freight train to come by. Watch it, and count the cars. You may get to a hundred before the caboose reaches you. Then stop and reflect: you are seeing 4,000 or more tons of goods, manned by five well-paid employees, being hauled by an engine which uses only 17 cents worth of coal every mile. You are looking at efficient, economical mass transportation.

Then turn around and watch the highway. All too soon you will see a big, wide truck come lumbering along, exhaust belching, gears moaning as it tackles a grade, and a mile-long line of passenger cars behind it waiting for a chance to pass. It is run by one badly underpaid man and is hauling, perhaps, between five and ten tons at a cost of almost two cents a mile for gasoline, to say nothing of oil.

Stop and reflect again. A half minute's figuring will tell you that it would take 400 such trucks to haul the load the freight train is hauling. It would also take 400 men, and the gasoline bill would be somewhere between $6 and $8 a mile. How is it then, you ask yourself, that this truck can be and is competing with the railroad? Without having all the figures in the problem, you tell yourself that there is something wrong somewhere.

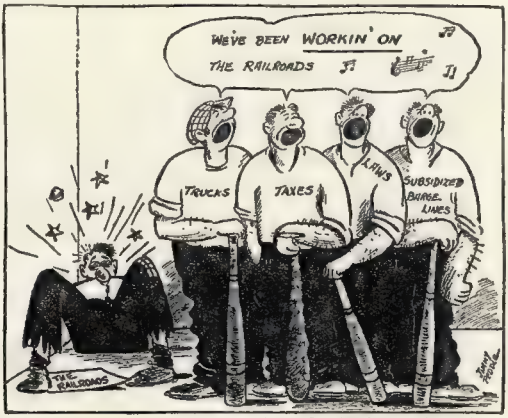


You're right; there is. In our last issue we told you how trucks can take unnatural advantage of the railroads, and how the economy of shipping by truck is in the long run no economy at all. In future issues we intend to go further into this matter. But what we want to tell you now is that when you pay less to ship by truck you *are actually paying more*—not alone in the form of taxes, or in the form of decreased purchasing power of transportation employees, but in good, cold U. S. cash.

The *average* rate for shipping freight by rail is about one cent a ton per mile. But the lowest rate which trucks can charge and meet expenses is four or five cents a ton per mile — in other words, four or five times as much as the average railroad rate. What's more, the

truck rate would have to be much higher if its drivers were given decent wages and if the trucks paid a fair charge for the use of the highways.

How, then, do the trucks get the business? If their rates are so much higher than those of the railroads, why should anyone use them? The answer is simple. They do not compete with average railroad rates, but with specific railroad rates which are higher than average. The railroad rate structure, built up under rigid Commission regulation, was designed to serve the interests of the public. The authorities have always encouraged very high rates on light and valuable articles *with the understanding that, in return, the railroads must offer correspondingly low rates on heavy and low-valued stuff.*




*From "Ry. Purchases & Stores."*

**The Railroad Blues**

Let us see how this works out. The average rate is about one cent a ton per mile. Now, the Commission has said to the railroads: We will let you charge ten cents a ton per mile on men's suits if you will cut the rate on a ton of coal to eight mills (ten mills make one cent) a mile.

Suppose a suit of clothes weighs five pounds (400 suits to the ton) and that it travels 500 miles. The freight charge on each suit will be 12½ cents. If the rate charged were the average rate (one cent a ton per mile), the freight on each suit would be only 1¼ cents. This policy thus costs the purchaser of a suit a little more than 11 cents.

But how has it affected his coal bill? Reduction of the rate on coal goes with the higher rate on suits. If the coal moves 500 miles, and it moves for eight instead of ten mills a mile, $1 is saved on every ton of coal.

Ten or eleven cents extra freight on the price of a suit is a lot easier to pay than $1 extra on a ton of coal. That is why the freight rate structure was built up this way—to serve the public interest by making charges heavier where they will not be felt, and by lightening the burden where it is hard.

BUT what does the truck do? Does it come along and offer to take *all* freight at the average railroad rate? It does not. It takes only that freight for which the railroads charge much higher than the average rates. Trucks cannot haul low-rate stuff. Even if they could they wouldn't want to; they would lose money doing so.

As soon as the high-rated traffic goes to trucks, the railroads have to raise the rates on low-rated traffic to keep

the average rate from falling. That is exactly the reason for the rate increase petition which was recently up before the Interstate Commerce Commission.

People can afford to pay ten cents extra for a suit of clothes or a cent more a pound for meat, if by doing this they can save dollars in the price of fuel, building materials, etc. *But they cannot save the pennies and the dollars too.* They have been saving the pennies by shipping by truck. Now the railroads have had to ask for an increase in rates which were so low in the first place that the trucks could not begin to compete with them.

When it costs only one cent on the average to ship by rail and four cents or more to ship by truck, and still the traffic is diverted to truck, anyone can see what is ahead of us. There is a difference of three cents a ton per mile which *somebody* is going to pay. That somebody is Mr. Public, the ultimate consumer. And it is about time he woke up to the fact.

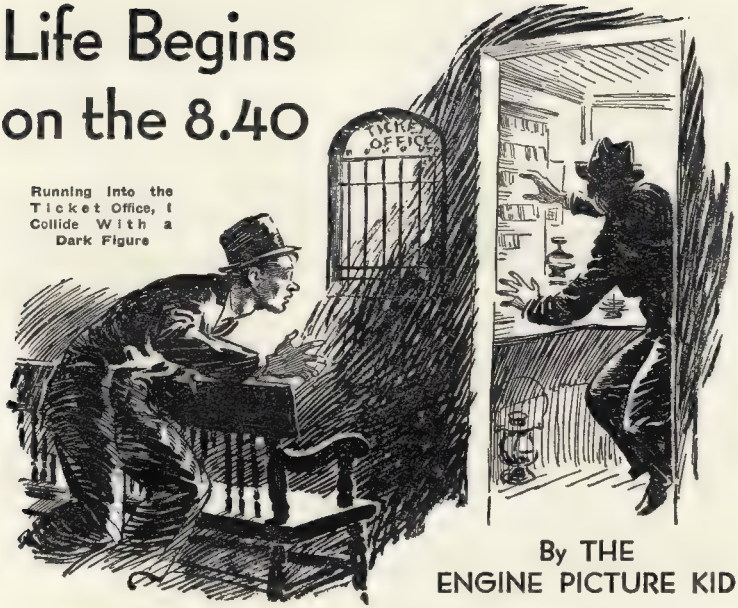
Remember: every time you see a long-haul truck moving a load of freight which could be handled by rail, tell yourself that it is waste for which someone is going to pay heavily. That someone is you.

And, let us repeat, this is not all the story of the gold-brick "economy" of truck transportation. When the shipper pays a freight bill to the railroad, the transaction is complete. When he pays it to a truck, his expense has just begun. He has to pay taxes to maintain the road the truck uses. Since every truck shipment reduces railroad earning power and the ability of the railroads to pay taxes, the assessments on other property owners must be increased to make up the difference. So the man who ships by truck pays his freight bill once to the truck operator and twice to the tax collector.

The truck has a proper place in short-haul transportation. Since much freight has to be loaded on it to be taken to the railroad, the greater cost of truck operation may be offset in short hauls by the saving in the cost of loading and unloading. There are plenty of such movements up to 20 or 30 miles, and in some cases even greater distances, where the truck really represents economy.

But long hauls over the highway are not economy. They represent waste of the most extravagant kind—waste which is carried on at the expense of every consumer and taxpayer in the country.

# Life Begins on the 8.40




Running Into the Ticket Office, I Collide With a Dark Figure

By THE ENGINE PICTURE KID

***Even on the Happy Valley Railroad, It's a Long Worm That Has No Turning***

A BIG, burly fellow gives me a shove as he crashes into the cab of our little, old-fashioned jack—the pride and only locomotive of the Happy Valley Railroad. The moose slaps a lunch box down on the floor plates. He slings a brown satchel over on the engineer's seatbox. Then he drags out a pair of overalls and starts changing his clothes in the warmth of the open firebox door, it being a cold winter day in the Saskatchewan prairie country. A light snow is falling.

This stranger sure wasn't at the end of the line when they handed out nerve. But as the old saying goes, it's a long worm that has no turning. Which is true even on our 3½-mile pike, Canada's shortest man-sized railroad.

"Hey!" I yell. "You can't undress here. Ain't you got no respect for a lady?"

"A *lady*—in an engine cab. Who—*you?*" He laughs like a fool.

"No, I ain't the lady," I snap back with flaming indignation. "Goldenrod Higgins, daughter of the president of this road, wheels the 8.40, and she'll be along any minute. She's a bona fide hogger."

"My, my!" The fool pulls up his overalls and slips the straps over his shoulders. "Boney fide! Goldie sure was boney last time I seen her. A

skinny, long-legged kid eatin' bread an' jam, with jam smeared all over her freckled mug."

"You know Miss Higgins?" I ask.

"Know her?" The big guy grins. "We used to play around the C. P. yards in Vancouver together. We're pals. Thick as that." He crosses two fingers.

Naturally as I am engaged to Goldenrod myself, there is other people I would rather see than him in Plainview, the main terminus of Hardshell Higgins' Happy Valley Line.

While I am thinking, Goldenrod climbs into the cab, both leather gauntlets clasped in her left hand. She stares at the stranger a moment, then rushes to him.

"Jim!" she exclaims, grabbing his hand. Then turns to me. "Kid, I want you to meet my cousin Jim Kelly."

"Yeah," says the big goof. "That's me. An' if I do say it myself, the best fireman in Canada. Goldie, who's this fellow?"

"Why," says Goldenrod, "I thought you knew. That's the Engine Picture Kid."

Jim shakes his head. "A picture nut, huh?" He fixes his eyes on my International Engine Picture Club button. "I been seein' those buttons on guys all over the country."

With that he moves over to the right hand seatbox and begins talking to Goldenrod. I have a feeling that Jim and myself ain't going to get along very well together.

This feeling increases when Goldenrod gets her highball from the con, and the 8.40 starts rolling down Happy Valley with Jim Kelly still in the cab and a curtain of snow beating against the cab windows.

This Kelly guy has many irons in the fire besides railroading. I learn that he has come to Saskatchewan only because of a temporary slump in business.

"To bad I gotta bump you, Kid," he says to me. "But I got seniority on this job straight from Old Man Higgins himself."

Goldenrod is leaning out the cab window watching the snow. She don't say anything. A queer lump rises in my throat because I have become very fond of firing this jack with my girl friend at the throttle, which I been doing practically since Hardshell Higgins bought the Happy Valley Line five or six months ago. So I keep wishing Jim Kelly's business had kept him out of Plainview.

When we get down to Valley Park at the other end of the line, Jim buttons up his coat and leaves the cab to look around the depot, and I ease over toward Goldenrod and tap her on the shoulder.

"What's on your mind?" she says.

But I guess she knew, because before I get a chance to tell her she says: "I'm afraid it's true. Rule One in Dad's book of regulations for the H. V. is that only members of the family shall be employed. He wrote Aunt Matilda a long time ago that Jim was marked up for fireman."

"Still—" I begin.

Goldenrod gives me a smile and says: "We're just engaged, Kid. Technically, you're not actually in the family—yet."

Jim Kelly barges along and we shove back for Plainview. Funny, but all the way back the coal scoop weighs a ton and the slice bar has got so heavy I can hardly lift it. Besides, it don't make matters any better to have Jim not only telling Goldenrod what a swell fireman he is but also that he will teach her new tricks about engine driving.

I decide to have a showdown. When we pull into Plainview I swing from the cab and head for the H. V. executive offices over the depot on Railroad Avenue where icicles is hanging down over the windows.

"Run along and peddle your pictures," says Jim, watching me go.

Hardshell Higgins, who was a boomer hogger before he bought his own pike and settled down, meets me at the door, all excited.

"Hello, son," he says. "Have a cigar. Congratulate me. You're canned. I got a real fireman on the H. V. now. My sister Matilda's oldest boy, Jim."

"But, Mr. Higgins—" I says.

"I know it. I know it," snaps Hardshell. "The Kellys were always shanty people socially, while us Higginses are lace curtain Irish. But Jim's a smart lad. There's a lot of Higgins in him."

I have to listen to family history before I can explain I am not very anxious to leave engine service on the H. V. Railroad at this particular time.

"Nonsense," says Hardshell. "You need more experience. Hit the boomer trail. See Canada. Get a load of the Yellowhead Pass where the C. N. R. enters British Columbia. Great country out there."

It is useless for me to tell the old coot that I would rather be a home guard and stick around close to his daughter under the circumstances.

HARDSHELL won't listen to reason, so I return to Goldenrod disconsolately who is still in the engine cab which bears her name.

"Did Dad fire you?" she asks softly.

"Yes," I says. "So I quit. I'll stick around, though, until the end of the week when I draw my time."

She looks at me kind of funny. There is a mist of tears in her eyes. "You're a swell guy," she says. "I'll miss you a lot, and some day you're coming back with a lot of money and we'll get married, won't we, Kid?"

"You bet we will," I says. "But I ain't gone yet."

Later Old Man Higgins is passing by where I live on Dominion Street, second floor back, and he drops in to see me, shakes the snow off his big fur coat and says:

"Kid, I been thinking things over and if you say the word I can give you a job temporary for a few days in another branch of railroad service."

That is like asking a condemned man if he would be interested in a reprieve.

"Did Jim quit?" I says hopefully.

"No," says Hardshell, "but my station agent at Plainview has got a case of pneumonia. Can you sell tickets?"

"I can try," I says.

Of course selling tickets is a lot harder job than firing an iron horse because there is more arithmetic involved and it don't make matters any better to have Jim Kelly hanging around our nice warm station on cold days and telling me what a good fireman he is.

Still it enables me to solve a mystery that develops pretty soon as far as the finances of the Happy Valley is concerned. The passenger business booms very suddenly, only the ticket receipts don't show any improvement.

Higgins is pretty mad about it, too, because that is not the way to run a railroad.

"You're a fine bird to handle funds," he growls. "I might have known it. What do you do every night? Throw the money up in the air and give the company all that sticks to the ceiling?"

"No," I says. "I never thought of

that system. And I must say it don't sound very efficient from a company standpoint."

"It ain't," snaps Hardshell. "Look at this!"

He shows me a big pile of ticket stubs and an audited list of receipts. The two don't tally. There is twice as many tickets sold as money received.

"You ain't been having any cut-rate sales on transportation, have you?"

"No," I says, still studying the figures. "It looks like somebody is stealing the tickets and selling them outside."

"It does," says Hardshell grimly. "And there ain't anybody handles the tickets but you and me. There ain't any agent at Valley Park."

"Hmm!" I says. "That makes one of us a thief, don't it, Mr. Higgins, and I know it ain't me."

The way Old Man Higgins carries on, you would of thought I had insulted him or something. Nevertheless, in spite of all his raving he leaves me something to think about, saying that if any more tickets is missing he will have me thrown in jail in addition to being fired.

He seems to have overlooked the fact that I am engaged to his daughter, and such an action would cause a lot of gossip in Plainview.

"Besides," he says, storming out of the depot and letting in a cold draft through the open door, "that smart nephew of mine, Jim Kelly, says it's only natural that if you were clever enough you'd want to make yourself a little extra money to travel on, so you'd have it when my regular station agent comes back."

AS time goes on, tickets keep being picked up by old Amos Chutney, the passenger con, that I have never sold, according to the money in the till. I figure that the regular station agent ain't so sick but what he can work a racket and clean up a little money on the side without getting blamed for it.

One morning as I open the office I notice that someone has been in during the night, because I had stuck a little piece of paper in the door jamb when I locked up the night before and it dropped to the floor.

So I spend most of the day rigging up a scheme to catch the thief. Maybe if I do I can hold the station agent job permanent at Plainview.

"I'll have the crook for you in the morning, Mr. Higgins," I says when he comes in. "You have nothing to worry about."

"Is that so?" retorts Hardshell. "Well, you try operating a railroad these days, even just three and a half miles, and see what I've got to worry about."

"No," I says, "I will stick to selling tickets for the present," although I can't help thinking to myself that some day me and Goldenrod will inherit the H. V. pike after the old man retires if it hasn't gone out of business by then or merged with the Canadian National.

That night I set my trap carefully, and after I am supposed to have gone home to Dominion Street I sneak back into the darkened depot on Railroad Avenue and hide behind a bench in the waiting room. Outside of a few mice running around the place, nothing happens until after midnight.

I am about to fall asleep when I hear the door to the baggage room creak open. Naturally I am on my toes. A floor board squeaks and a dark figure makes for the ticket office.

The next instant there is a crash and a blinding flash of white hot light. In two jumps I am running into the ticket

office. The black maelstrom seems doubly dark after the moment's bright light, but I collide with the intruder right at the door.

"Got you," I says, trying to throw my arms around him. "So you told Mr. Higgins you had pneumonia, eh, to throw dust in his eyes?"

I drag him down to the floor like a football player. I am not one to let go my hold, although a heavy rain of blows is showered on my face. Then I get a heavy boot on the chin, from this thief who doubles up his legs and kicks out like a mule. While I am trying to shake my head clear, the crook gets up.

I stagger to my feet also and grope for the switchlight. Something descends on my head that feels like it was the chair by the agent's desk, or maybe the desk itself. Through the shower of stars that twinkle through my brain I cannot tell very good. It might even have been the depot roof.

Anyhow when I finally come to, there is a lump on my head as big as a signal light, but my mind is very clear. I fumble around for the lights.

The crook has gone and, of course, I am very sorry that I did not capture him, but at the same time quite relieved to find that none of the tickets have been stolen from the rack. Of course being the regular agent he knew perfectly well where they were kept.

I have just finished counting them when I hear a commotion outside. There is several people have come down to the depot and among the voices I recognize Old Man Higgins and his nephew Jim Kelly.

"See that, Uncle Hardshell," says Jim. "I told you all along that kid was taking the tickets. Robbin' a poor, honest railroad president of his hard-earned money. That's what he's doin'!"

Naturally after the fight I have just put up to catch the real thief, I am more than a little burned up. I do not feel any better when Hardshell and Jim storm into the room with a police officer.

"Look!" says Jim, pointing at me. "Caught with the goods this time. Sittin' over there countin' tickets."

"Yep," says Hardshell sadly. "Trying to get even with me for firing him. Trying to break the H. V. before he left. Wait till Goldenrod hears about this!"

"Mr. Higgins," I says, "you're making a big mistake. I was just counting the tickets."

"At this time of night?" sneers Hardshell. "It's lucky Jim happened to be up and saw the agent's office all lighted up."

"Yeah," says Jim. He turns to the bluecoat. "Officer, arrest that man."

A SUDDEN light dawns on me. "Wait a minute!" I says, looking at Jim Kelly. "How about Jim, Mr. Higgins? What was *he* doing around the station at night?"

Kelly laughs. "Lookin' for the guy stealin' uncle's tickets." He beams at Hardshell. "An' I guess I found him."

"Gee!" I says. "That makes two of us, but he got away."

"Who got away?" snaps Hardshell.

"The crook," I says. Then I tell him about my fight and show him the lump on my head.

"No soap," says Jim Kelly. "That story sure sounds fishy to me. Don't it, copper? He probably stumbled an' cracked his head on something sharp prowlin' around in the dark."

Thus I am in a bad jam, all on account of trying to help out Hardshell Higgins.

"All right," I says. "If you guys

don't believe me, catch your own crooks after this. I'm through."

"And how!" says Jim. He nods to the policeman, who pulls a pair of handcuffs out of a back pocket. "Slip the bracelets on him."

"Gosh," I says to Hardshell, "Mr. Higgins, you don't think I really—"

"Take him away," says Hardshell, turning from me. "Poor Goldenrod!"

"That guy looked like a crook to me from the first day I seen him," says Jim, and the officer gives me a shove.

I have slept on a lot better beds than they have in the Plainview calaboose, and I must say I am not feeling very good in the morning when the warden comes in with a sickly looking breakfast which he slops down on a trap in front of me.

"Want a lawyer?" he says.

"What for?" I says. "I'm innocent."

"Oh, sure, sure!" says the warden, slipping me the wink. "They all are. Just the same, there's a feller named Slivowitz that'll get you out if anybody can. He takes all the tough cases."

"Well," I says, "I ain't a tough case. I was just trying to do my future father-in-law a good turn."

"O. K.," the warden says cheerfully, locking the cell door and leaving me inside. "I don't blame you for tryin'. It's gettin' caught that lands you in trouble." As he starts to leave he calls back: "Don't forget Slivowitz."

That warden, I thinks to myself, must be getting a rake-off from Slivowitz.

FROM where I am, looking out through three little bars at a streak of sunlight, I must say the old boomer trail looks pretty good to me. I can hear the 8.40 train whistle on her trip down to Valley Park to bring the commuters back to Plainview.

I wonder what Goldenrod is thinking about as she grips the throttle of the little fast-stepping jack. Maybe she is sorry she ever became engaged to me because I know things look very bad.

About ten o'clock I am surprised by the warden announcing that I have a visitor but she's not allowed to enter the cell. It is Goldenrod looking at me through the iron bars.

"Kid," she says quietly, "how in the devil did you get in this mess?"

"Gee," I says, stammering slightly. "Then you—you don't believe I stole those tickets?"

"Of course not, silly. Now start at the beginning and tell me everything. Dad's so quick tempered, he makes snap judgments sometimes, and he's not always right."

I start at the beginning, telling her all about the trap I set to catch the crook and how instead of him being in jail it is me that is on the inside looking out. Goldenrod shakes her head very gloomily.

"Just like you," she says. "What happened to the camera you fixed on the shelf to get a picture of the thief when he stepped over to the ticket rack and set the flashlight off?"

"Gosh, Goldenrod," I says, "I've been so worried since I have been arrested I forgot all about it. It's there yet, I guess."

Goldenrod's eyes brighten. "Wait here," she says. "I'll be back."

It is a long time until she returns. Finally she arrives outside the cell door again.

"I've had the plate developed," she breezes. "It turned out fine. A regular portrait. Shows the thief with his hands right on the ticket rack."

"I know," I says, "I measured the distance carefully. It's the regular station agent. I knew all along he was the crook."

Goldenrod shakes her pretty blond head and replied:

"No, it was cousin Jim."

"Jim?" I gasp in surprise.

"Yes," she says, "I thought he'd been acting queer lately. Him and his big business talk." The girl tosses her curls. "Dad showed him the picture you took and made him confess. Jim returned the money he had stolen. He's leaving town tonight."

"Gee," I says. "It's sweet of you to get me out of jail. The grub here ain't so good."

Goldenrod s q u e e z e s my hand through the bars. "Your camera did it," she explains with a bright smile. "After all," she adds, "what would people think, a Higgins engaged to a jailbird? And as for the grub—well, when we get married—"

At this juncture the warden comes up behind Goldenrod. His rusty key turns the lock; and Goldenrod and I, arm in arm, go back through the snow to the little roundhouse of the Happy Valley Line. Tomorrow morning life would begin anew on the 8.40.

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## The Passenger Engine Speaks

**OH, I'm standing in the station with the Limited in tow.**
**It's dark and cold and snowing hard; the wind's begun to blow.**
**The hogger climbs into my cab, the air-brakes have been tried;**
**He is strapping on his goggles, all ready for the ride;**
**His hand is on the throttle and the tallow's shoveling coal.**
**My headlight flashes on and my bell begins to toll.**
**When the skipper comes alongside as mad as he can be**
**And what he says to my boss, takes the heart clean out of me.**

**For he hollers that we've got to wait a quarter of an hour**
**To accommodate some brass-hat. Boy, the old man's look is sour!**
**The tallow flings the firedoors wide and slams his shovel down,**
**And says "Oh, why the hell don't they let us out of town?"**
**So for all those fifteen minutes we wait and wait and wait**
**For some Congressman or other who doesn't care if we are late.**
**But I've got to make the time whether we start late or not;**
**For if I don't at the other end the boss goes on the spot.**

**Then the old cab signal blows and my throttle is pulled back.**
**The switch lights change to green, giving us an open track.**
**The station has moved backward and I'm bumping through the yards**
**Over ice-encrusted switches, which are also in the cards.**
**Then we're tearing through the suburbs and out across the plain;**
**The wind is howling through my wheels, the snow has changed to rain.**
**The track is wet and slimy and before me is a hill.**
**Will I make the time? Don't worry, boss, you know darned well I will!**

—Ty Price.

# Is Steam On Its Way Out?

TO read the newspapers these days, you'd think that the old iron horse was on her last legs, and that she will be replaced by internal-combustion engines within ten years. Some editorial writers say it would pay to run all steam locomotives on the scrap heap, and build a whole new army of Diesel engines. Even the "New York Times" thinks all our railroads will have to replace their present passenger equipment with streamlined, Diesel-powered gas buggies as soon as they can get rid of the old junk. It is very worried about the fact that railroads have so much steam equipment on hand they won't be able to buy the new era trains for years.

Well, remember that the newspapers said we'd all be rich by 1931, and flying to work by 1935. Remember, too, that newspaper editorial writers know as much about motive power as a kid knows about thermodynamics. They pick up their papers and read that the Spurlington's "Breezee," the newest thing in gas-electric trains, could travel to hell and back on what it costs to run a steam train from San Francisco to Los Angeles. Immediately they sit down and knock out very, very sad articles proving that steam is on its way out.

But is it? The answer simply depends on which type of power is cheaper.

Few people have attempted to discuss this matter as it should be discussed, with no guessing, no tearing of hair, no ballyhoo. Doing so is a scientific process. It calls for lots of knowledge and plenty of clear thought—for consideration of ALL the factors and not merely one. Within the last few years a few authorities have tackled the subject, but apparently the editorial writers haven't read anything about them. One of the best recent articles on the subject, one which makes an honest, intelligent discussion of all factors, appears in the current issue of "Baldwin Locomotives." It is "Motive Power for High Speed Service," by R. P. Johnson. It takes up the points for and against Diesel and internal-combustion power. But it does not stop there. It determines just what it will cost as compared to steam power, and why it will cost just that.

In the first place, any high-wheeled, steam locomotive can be built to run as fast with the same load as any Diesel or internal-combustion engine. It also has the advantage of being able to be uncoupled from one train of cars to another, which Diesel-powered streamlined engines built so far have not. Such trains cannot even adjust themselves to volume of traffic. Moreover, internal-combustion engines of all kinds cannot run at low speeds, and must use either a gear shift (as in the case of the automobile) or electrical transmission, which such trains use today. This is expensive to buy and maintain. Although they accelerate faster up to 30 m.p.h., they take much longer to climb to higher speeds. A modern steam train can attain 90 m.p.h. only 3 minutes after starting, whereas an internal-combustion train requires at least twice as long and in some cases 5 times as long. On the other hand, internal-combustion trains weigh less, carry enough fuel for long trips, and are more efficient.

Granted all these advantages and disadvantages, which is cheaper?

There are ten items by which we can compare steam with Diesel or internal-combustion power: (1) fuel, (2) water, (3) lubrication, (4) supplies, (5) engine house expense, (6) crews' wages, (7) repairs to locomotive, (8) interest on book value, (9) amortization, (10) taxes and insurance.

Let's take up each of these items, see how they compare, and estimate from them the entire cost of operating both steam and internal-combustion trains for an average mile.

Suppose (says Mr. Johnson) both types of power are run daily between two cities 300 miles apart, over fairly level country, on a schedule of 4½ hours. The steam train would be composed of six cars and engine; the internal-combustion train of six cars, one of them the motive power unit. The steam train would not be streamlined, would weigh 550 tons (250 for engine and tender, 300 for 6 cars); the internal-combustion train would be fully streamlined, would weigh 300 tons. Because of greater weight and lower thermal efficiency, the steam engine would have to develop 3,180 horsepower, more than twice that of the internal-combustion engine (1,800). To maintain the service 365 days a year, two trains of each kind would be necessary. Thus each train would run about 110,000 miles a year. The following figures apply to such a year.

First of all, the steam train will require $11,646 worth of coal (5,823 tons at $2 a ton), whereas the internal-combustion train will use only $7,920 (7.2¢ per mile) worth of oil. (This is what gets newspaper writers all excited.) Round One for Diesel.

Second, cost of water for the steam engine would be $315 (7,876,000 gals. at 4¢ per 1.000 gals.); for the internal-combustion, practically nothing. Round Two for Diesel.

Third, cost of lubrication for the steam engine would be $550; for the internal-combustion, $2,209. Steam's round all the way.

Fourth, supplies for both trains will amount to $330 for the year. Even up here.

Fifth, enginehouse expense will amount to $1460 for steam and $730 for internal-combustion or Deisel (on a basis of 182½ round trips at $8 per turn-around for steam and $4 for the other). Diesel is 'way ahead here.

Sixth, crews' wages (on basis of 15¢ a mile for fireman and engineman) will come to $16,500 for both types. Two men are necessary in the cab of an internal-combustion train. This round is also even up.

Seventh, total maintenance cost of entire steam train, including $9,900 for the cars (at 1½¢ a mile) will be $43,241; of the internal-combustion train, $119,115, also including $8,250 for 5 cars. Quite a spread, indeed. These figures are reliable, for there are enough Diesel switchers in use right now to afford a basis of comparison. Even allowing for the fact that internal-combustion passenger engines will require less for repair than switchers, the above figures are conservative. Steam's round again.

Eighth, interest on investment will be $8,942 for steam train and $13,021 for the other. Why? The steam train costs $340,000; the Diesel, $500.000. This is figured at 5 per cent, assuming the economic life of the steam engine will be 13 years, the cars 24 years, and the entire internal-combustion train 24 years. (Economic life is the number of years' service during which the TOTAL cost of an engine reaches its lowest yearly average.) Round Eight for steam.

Ninth, amortization (the amount of original cost charged off each year) will be $17,692 for the steam train ($7,692 for engine and $10.000 for cars) and $20,833 for the other. This is done by simply dividing cost by economic life. Steam again.

Tenth, taxes and insurance will be $2,550 for the steam train and $3,750 for the internal-combustion train. This is figured on a basis of 75 per cent of value. Last round for steam.

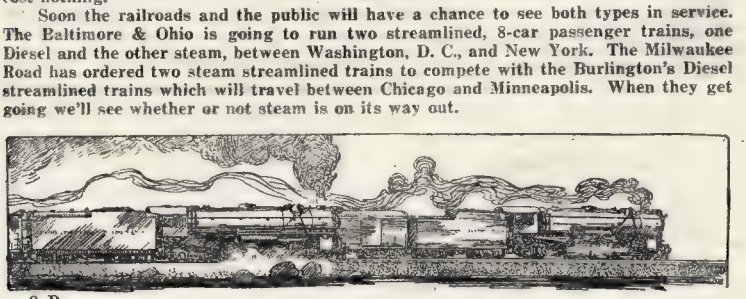
Diesel is still going, but looks pretty groggy. Now let's add up the points and see who won. The totals for a 110,000-mile year are $103,226 for steam and $184,399 for internal combustion, or less than 94¢ a mile for steam and more than $1.67 a mile for internal combustion. These figures do not sound like a death-knell for steam.

Remember, too, that the steam train we imagine is not streamlined, is pulling 50-ton cars, and uses a Pacific type engine. Undoubtedly lighter weight and streamlining would help it. And, as Mr. Johnson concludes, "It can be made quite as bizarre-looking as any high-speed internal-combustion train."

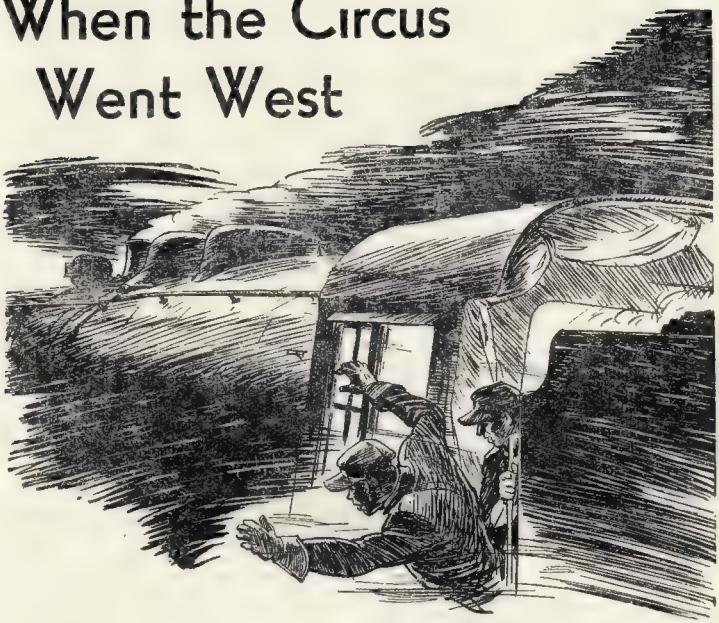
On Oct. 24-26, 1934, the Union Pacific's 900-horsepower, 6-car Diesel-powered streamlined train ran between Los Angeles and New York City, 3,258 miles, in a little less than 57 hours. Its fuel cost about 2½¢ a mile (1.6 miles a gal. at 4¢ a gal.), or about $82 for the trip.

But suppose we look into the matter. We find that a 6-car steam train such as we described above could be built to run as fast. It would use on such a trip no more than 150 tons of coal (including terminal and stand-by fuel) at about $2 a ton. The difference, although great, cannot make up for the other costs. Glance at the above figures again, and you will see that the Deisel train would be more expensive if its fuel cost nothing.

Soon the railroads and the public will have a chance to see both types in service. The Baltimore & Ohio is going to run two streamlined, 8-car passenger trains, one Diesel and the other steam, between Washington, D. C., and New York. The Milwaukee Road has ordered two steam streamlined trains to compete with the Burlington's Diesel streamlined trains which will travel between Chicago and Minneapolis. When they get going we'll see whether or not steam is on its way out.



# When the Circus Went West



*The True Story of a Wartime Disaster Caused by One Little Box of Pills*

By E. J. BAKER

LITTLE things are always important in the railroad game. A broken bolt is more than a broken bolt; it is a portent of disaster. An insignificant act is more than it appears to be; it may lead up to terrible consequences. Such was the case of the worst circus wreck in railroad history. It was caused by a box of kidney pills.

The accident occurred just before sunrise of June 22, 1918, on the Michigan Central at Ivanhoe, Indiana, a suburb of Chicago. At 2.30 A.M. the second section of the westbound Hagenbeck-Wallace Circus train left Michigan City, Indiana, with orders to take the Gary & Western at Ivanhoe. The train consisted of Engine No. 7826, seven stock cars, fourteen flat cars, four sleepers and a caboose, all except the caboose being the property of the circus company.

This train was in charge of Conductor R. W. Johnson and Engine-

man Gasper. Trainmaster F. S. Whipple was riding the caboose.

The circus was to play that day at Hammond, Indiana. Most of the performers, worn out from their labor of the previous day, were sleeping soundly in their berths. All of the cars were wooden. The sleeping cars were rebuilt Pullmans, with steel platforms and with some berths three deep. They were illuminated by oil lanterns, hung in the center, no other lights being permitted.

Charles Dollmer, manager of the show, was sitting up, checking over the day's books, while his wife lay asleep in their berth. Hercules Navarro, nationally famed strong man, was snoring loudly. Joe Coyle, clown, also was asleep. He had no foreboding that his wife and two babies would meet death at his side and that he would sob: "I wish I could have died with them!"

The train was loafing along at about 25 miles an hour, slowed up by a caution signal east of Ivanhoe, and came to a stop at 3.55 A.M. in answer to a signal from Conductor Johnson, who had noticed a hot box on one of the flat cars loaded with circus equipment. Engineman Gasper stopped with his locomotive pilot just a few feet from the Elgin, Joliet & Eastern crossing.

Trainmaster Whipple, dozing in the caboose, awoke with a jerk to see the headlight of a speeding locomotive boring a hole through the darkness, but not thinking, at the moment, that it could possibly be on the same track.

MEANWHILE, an empty troop train in charge of Conductor L. Johnson and Engineer Alonzo K. Sargent, had left Michigan City at 2.57 A.M., 27 minutes after departure of the circus special. This train consisted of engine No. 8485 and 21 steel Pullmans.

The night was clear and signal lamps were burning brightly. Jogging along at between 25 and 30 miles an hour, the troop train passed the automatic signal two miles east of Ivanhoe, which was set at caution. It passed the next signal, red as crimson, without even slowing down. It passed Flagman Timm of the circus train, although Timm swung his red lantern frantically, lighted a fusee, and flung the burning fusee at the cab window as the 8485 thundered by.

Ignoring every possible danger signal, the 8485 plowed into the rear of the circus extra. The wooden circus cars crumpled up like paper, and almost immediately burst into flame from the oil lamps.

Clowns, bareback riders, trapeze performers and acrobats, many of them veterans of the "big top," perished in the crash that had come too sudden for them to escape. Many were suffocated or burned to death. A total of 68 men and women answered the last call in that wreck, and 127 others were injured.

Miss Rose Roseland, a bareback rider whose salary was $25,000 a year, was crushed to death in her berth. The ballet of one hundred dancing girls was decimated. Among the other victims were the Rooney family of bareback riders, the Meyer family of animal trainers, the Cotterell family of equestriennes, and Harry La Pare, Ed Devoe and Mark Adams, clowns. Hercules Navarro, the strong man, died in agony, his body crushed from the waist down.

The first man to find him as he lay dying was W. P. Robinson, a contributor to this magazine and an organizer for the Switchmen's Union of

Flagman Timm of the Circus Train Swung His Red Lantern Frantically at the Oncoming 8485 and Then Flung a Burning Fusee at the Cab Window

North America. At that time he was switch foreman for the Indiana Harbor Belt at Gibson, Ind. He says:

"We coupled onto twelve cabooses and hustled them from Gibson to Ivanhoe Tower over what was known as the Gary & Western. There we saw the horrible wreck. The 8485 was still upright, her front end down, looking like a big crouching dog.

"We joined in the rescue work. Whenever we saw a clump of bushes move or quiver we hurried there with a stretcher. I came across Navarro. He was crying out piteously: 'Kill me! I want to die.'

"My crew and I hauled 60 of the 127 injured to the hospital at Hammond."

The first tints of dawn were visible in the sky at the moment of the crash. Performers who escaped death stood along the right-of-way in their night clothing, dazed and helpless, as their comrades were dying in the wreckage. Manager Dollmer, who had escaped unhurt after throwing his wife out of the car to safety just before the collision, was working heroically to rescue those pinioned in the débris.

Survivors clawed into the wreck, searching hysterically for friends and relatives. Only force prevented some from rushing into the roaring furnace of wreckage. Trainmaster Whipple was among the missing.

News of the disaster was slow in getting out, as the wreck tore down the wires. Ed Ballard, of French Lick, Indiana, owner of the show, was in Gary when notified by telephone. Relief trains with doctors, nurses, surgical supplies and fire engines were sent from Hammond, Gary, East Chicago and other nearby localities, but there was a dearth of water supply. When finally water was brought in tank wagons it was too late to do any good.

Sadly the survivors were taken to Hammond, where they were to have given a performance that day. Instead of the gay holiday crowds expected, a weeping and bandaged throng of men and women performers gathered silently around a red and gilt trimmed ticket wagon on the Hammond circus grounds that afternoon, seeking word of the fate of their comrades.

From behind the bars of the window of the ticket wagon, Manager Dollmer began the task of registering the survivors and compiling the grim casualty list. One by one the survivors filed mournfully past the window.

Joe Coyle, bandaged, said: "There'll be no circus in Hammond tonight! The kids will get left this time." Then he fainted, and had to be carried away on a stretcher.

*Photo by Joseph Lavelle, 4615 66th St., Woodside, L. I., N. Y.*

**Michigan Central Engine No. 8482, Sister of the 8485, Which Plowed into the Rear End of the Hagenbeck-Wallace Circus Special near Chicago Just before Sunrise of June 22, 1918**

OLD-TIMERS in the circus troupe were recalling a similar catastrophe of the Benjamin Wallace shows, which later were merged into Hagenbeck-Wallace, at Durand, Michigan. As one of the veterans put it:

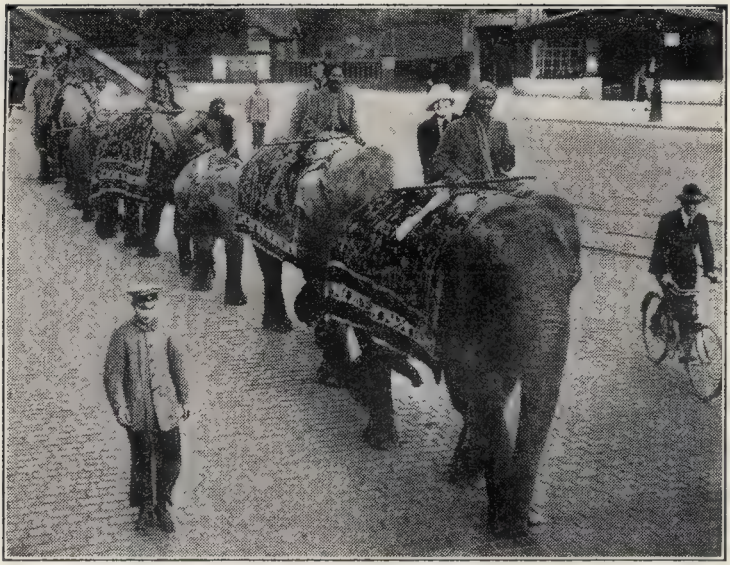
"Two sections of the train collided in the darkness on August 7th, 1903, killing 26 persons and injuring many more. The first section, arriving from Charlotte, Michigan, was standing in the Grand Trunk Railway yards at Durand when the second section, running at fifteen miles per hour, crashed into it.

"Engineer Probst of Battle Creek said he saw the red tail lights on the first section and applied his air brakes but, to his horror, they refused to work. Then he reversed his engine, but the momentum of a 35-car train was too great. Three cars of the first section were telescoped. The engine and five cars of the second were demolished. In the caboose of the first section the members of the train crew were sleeping. The next two cars were filled with circus performers, also asleep. They never knew what hit them until it was too late.

"One of the cars was occupied by five elephants and several camels. An elephant and two camels were killed outright, but the other animals and their trainers escaped. As soon as they recovered from the shock, the trainers rushed to the cages to quiet the excited beasts, which were trumpeting and roaring with fear. The escaping steam and screams and cries made a terrifying spectacle in the early morning. A nearby hotel was used as a hospital.

"Engineer Probst, Fireman Colter and Head Brakeman Benedict, who had been riding the engine of the second section, agreed that if the brakes had been in working order the collision could have been avoided. Colter and Benedict jumped to safety as soon as they saw a collision was inevitable, but Probst remained at the throttle until within one hundred feet of the other train; then he, too, saved himself by leaping."

The loss of life at Ivanhoe was even worse than the Durand casualty list. L. W. Landman, Michigan Central general passenger agent, was unable to explain what had caused the pile-up at Ivanhoe—"unless," he said, "the engineer of the troop train was dead at the throttle."



The Elephants Are Coming! Section of Old-Time Benjamin Wallace Circus Parade. One of These Elephants Was Killed in the 1903 Wreck at Durand, Michigan

Rumors were afloat that a German spy had drugged Engineer Sargent in the hope of wrecking the troop train, which, however, happened to be empty.

On June 27th, five days after the accident, an investigation was held at Hammond, jointly by the Bureau of Safety of the Interstate Commerce Commission and the Indiana Public Service Commission, to determine the facts.

ENGINEER GASPER, of the circus train, testified that, looking back, he saw his flagman protect the rear of his train with red and white lanterns, and saw him light a fusee, give a violent stop signal with it, and then throw the fusee into the air.

Fireman Phillips, of the circus train, who had been hired only a few months before, admitted this was his first trip so far west and said he was not familiar with all the signals. He did not know anything about the accident until he felt the crash. Then he looked back and saw fire breaking out.

The conductor of the circus extra, R. W. Johnson, testified he had been riding in the cupola with Trainmaster Whipple as they approached Ivanhoe and noticed that all the signals were working properly. It was he who spied the blazing hot box and signaled Engineer Gasper to stop. As they slowed down, the flagman dropped off, taking with him lanterns, a fusee and torpedoes, while he, Conductor Johnson, went forward to fix the hot box.

Looking back, Johnson saw the glare of the troop train's headlight rounding a curve and saw the flagman give

a "washout" with the fusee, and then witnessed the crash.

The flagman, Timm, told how he had tried in vain to attract the attention of the engine crew on No. 8485, but there was no indication that they noticed him, and the engine sped on without slackening speed.

Conductor L. Johnson of the troop train said he met Engineer Sargent just after the collision, and asked how it happened, to which the engineer replied: "I was dozing, otherwise asleep." Brakeman Jackson of the troop train confirmed this testimony.

The fireman on No. 8485, Gustave Klauss, whose period of employment dated from October, 1917, did not testify at the hearing, but stated:

"I did not see the circus train until we were nearly on top of it. Realizing that a collision could not be avoided, I grew dizzy and sick at the stomach. Engineer Sargent told me to jump. I crawled down from my seat in the cab, and that is the last thing I remember until I found myself on a train bound for my home in Michigan City. My mind must have been a blank when the collision came."

Several of the men who testified at the hearing said that Fireman Klauss seemed to be wandering about the scene in a daze.

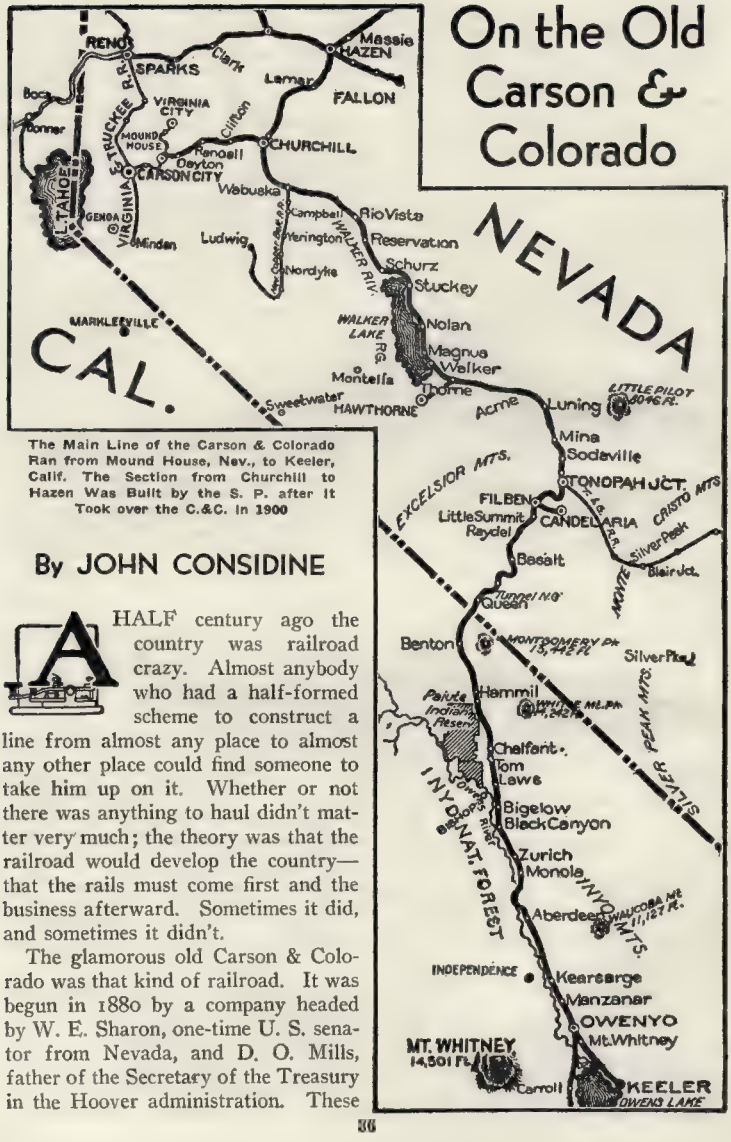
Both Sargent and Klauss were arrested and tried for manslaughter. Sargent had hired out with the Michigan Central as a switch fireman in 1890 and had a good record up to January, 1910, when he was discharged for running past a block signal in the stop position and colliding with the rear of a preceding train. On December 30, 1911, he had been reinstated and his record was clear until the Ivanhoe wreck. In his report to the M. C. company officials he said he had had little or no sleep since 5 A.M. June 21, and "had had a couple of heavy meals before going out, realizing that I would not get anything more to eat until some time the next morning . . .

"The wind was blowing very hard into cab on my side and I closed the window, which made the inside of cab more comfortable. Before reaching the next signal I dozed on account of heat in cab and missed it. Not realizing what had happened to me until within 70 or 90 feet, I awoke suddenly and saw the tail or marker lights showing red on a train directly ahead of me. Not realizing that the rear end of this train was so close, I started to make a service application, but before completing it placed brake-valve handle into emergency position. We struck almost instantly . . ."

At the trial the truth came out. Sargent had taken kidney pills shortly before the collision; and these, as doctors and chemists testified, tended to produce unavoidable drowsiness. For this reason he and Klauss were exonerated. Sargent went back to work, running a switch engine at Niles, Mich. He is now retired on pension.

Gustave Klauss never returned to the iron trail. The havoc wrought by a box of pills was too much for him.

# On the Old Carson & Colorado




The Main Line of the Carson & Colorado Ran from Mound House, Nev., to Keeler, Calif. The Section from Churchill to Hazen Was Built by the S. P. after It Took over the C.&C. in 1900

By JOHN CONSIDINE



A HALF century ago the country was railroad crazy. Almost anybody who had a half-formed scheme to construct a line from almost any place to almost any other place could find someone to take him up on it. Whether or not there was anything to haul didn't matter very much; the theory was that the railroad would develop the country—that the rails must come first and the business afterward. Sometimes it did, and sometimes it didn't.

The glamorous old Carson & Colorado was that kind of railroad. It was begun in 1880 by a company headed by W. E. Sharon, one-time U. S. senator from Nevada, and D. O. Mills, father of the Secretary of the Treasury in the Hoover administration. These

men had recently completed the famous Virginia & Truckee,* which coined money for its promoters, and which really was the inspiration for the new narrow-gage Carson & Colorado. Sharon and Mills both saw a great future for the road. To look at the map you can't blame them. But how successful the road was to be is quite another story.

Its northern terminus was Mound House, Nev., on the Virginia & Truckee, and it was named for two rivers—the Carson, near Mound House, and the Colorado, down in southern Nevada. But it never got to the Colorado. When it reached Keeler, on Owens Lake, in southeastern California, it petered out.

Its main line was 293 miles long, and its most populous station was Hawthorne, Nev., with less than five hundred inhabitants at the peak of its prosperity. There were some larger towns in Owens Valley (in California), six or eight miles from the road, and the projectors of the road thought those towns would be forced to move over and locate on the line. But the people of Bishop, Big Pine and Independence were a stubborn lot and decided that if the railway would not come to them, they would not go to the railway.

D. O. Mills, who was the principal stockholder, didn't see the road until after its completion in 1882. Then he made a trip over the line in company with H. M. Yerington, the general manager. Mills took in the surroundings in grim silence, going and returning, but all the while vouchsafed no word. Finally Yerington plucked up courage enough to ask Mills' opinion of the venture.

"It is either three hundred miles too long," replied D. O., "or it was built about three hundred years too soon."

In addition to a number of Paiute and Digger Indians and Chinese coolies, Keeler had a white population of about thirty. Mound House was not quite so big. From it trains ran south one hundred miles to Hawthorne, where the locomotive was placed in a roundhouse and the train hands and passengers ate supper and went to bed; there was nothing else to do in Hawthorne.

When Jim Butler, the discoverer of the famed mining camp of Tonopah, made his first trip over the line he was asked the inevitable "What do you think of the Carson & Colorado railroad?"

Jim scratched his head, squirted half a pint of tobacco juice at a crack in the station platform, and d r a w l e d, "Wa-al, it's the fust railroad *I* ever see that began nowhar, ended nowhar, an' stopped all night to think it over."

Of course, when construction of the line began there were a number of prosperous mining camps, like Bodie, Benton and Candelaria, contributing to its revenue. But then the fall in the price of the white metal began. The consequent decline of the mining camps was a hard blow to the road.

DURING the early 90's the conductor not only had to handle the train but to do the station work at the four stations between Belleville and Keeler, 150 miles. Conductor Frank D. Cagwin was something of a telegrapher and reported his train at Summit and other stations. Conductor Harry E. Epstine, worrying about his job, saw that it might be wise for him to do the same, and soon was able to "plug" as well as anyone.

Superintendent Robert J. Laws, trying to save money in every possible

* *See Dec., 1933, RAILROAD STORIES.*

An Old-Time Carson & Colorado Mixed Train at the State Line Monument, between Nevada and California, in 1887. Near the Monument Is Conductor "Deacon" Gale. Leaning Against the Pilot on the Right Is Engineer (Later Conductor) Frank S. Cagwin. The Man with His Hand on His Hip, on the Left Side of the Cowcatcher, Is Stan Wright, the Road's First Fireman. The Engine Is No. 6, American Type, Built by Baldwin

way, considered himself lucky when the road was breaking even. General Manager Yerington got the idea of cutting the trainmen's wages, but Laws would not stand for it. Rather than do so, he cut himself from $400 to $320 a month. This may sound phony, but Laws was like that.

Once when brakemen were scarce Alex Wittman was taking a trainload of cattle from Laws to Hawthorne—eight cars of cattle, no air brakes and no brakeman. At Junction, where the train pulled off the main line, Alex, busy letting the cars down with hand brakes, got an Indian from among a lot of redskins that were riding on top of the cars—Indians always rode free on the Carson & Colorado—to throw the switch. The Paiute buck did not relish the job, which meant that he would have to run a little distance to overtake the train. The thought weighed so heavily on his mind that he threw the switch before the last car had passed, and thus turned over six carloads of cattle.

"I was behind the cattle train with the regular train," records former Conductor Epstine, "and I surely found a mess, but fortunately nobody was seriously injured. I sent Aleck on to Hawthorne with the two carloads of cattle that had remained upright, got some cowboys from Candelaria to herd the rest of the cattle into the corral at Belleville, and pulled the overturned cars off the main line with my engine and tackle. It took a couple hours."

A couple hours didn't mean anything on the Carson & Colorado.

There were many wrecks, but only

two deaths, and those among the trainmen. Main-line meets would occur, although always there was ample time to stop, and nearly all such accidents were covered up.

"After the Southern Pacific took over the line," relates Epstine, "the new book of rules confused the minds of some of the old hands. One day when the train manned by Conductor George Woodruff and Engineer Gobey should have waited on a sidetrack, they misinterpreted the rules and continued on the main track. My train, westbound, met them six miles out of Rio Vista. They refused to back up their train to Mason, and I stood my ground. Finally they yielded and did back up, but upon their arrival at Hawthorne they reported that they had met me on the main line where I had no business to be, and that I refused to back up. Being in the wrong, they lost their jobs, but after a month or so Superintendent Laws relented and took them back again."

DURING the 80's the trainmen were all informally dressed, but when I first passed over the line in 1895 the conductors wore caps with gold braid, and blue frock coats with plenty of brass buttons. Business was still very poor. We often pulled out of Mound House without a passenger in either of the two canary-colored passenger coaches, which, with the mail and express car—also a bright yellow—made up the train.

The conductor and brakeman liked to have one passenger at least, for then, with the railway mail clerk as a fourth hand, they could play whist during the seven-hour run to Hawthorne. Even the engineer used to turn his cab over to the fireman now and then and take a hand at the game. The headquarters of General Manager Yerington were at Carson, which was entirely off the line, and this gave the train hands considerable leeway.

The only passenger north from Hawthorne one day was Mrs. Jack Campbell, wife of the editor of the *Walker Lake Bulletin*, a Hawthorne weekly. Just after the train had slipped over the first rise that hid it from Hawthorne, it came to a stop and remained there so long that Mrs. Campbell became annoyed and curious. She finally investigated. Walking the length of the train, she could find no sign of the crew. Even the locomotive was deserted. So she climbed a hill that would give her a view of Walker Lake, and there she saw the missing crew—conductor, brakeman, engineer and fireman—in swimming. In the next issue of her husband's newspaper the incident made quite an item.

This stirred Yerington to red-hot wrath—not so much because of the liberty taken by the trainmen, as because of the damage to the dignity of the road, for the story was widely copied in the Nevada press. He at once issued a bulletin announcing that the next train hand who went swimming during his run would do so at the peril of his job.

The eyes of Superintendent Laws twinkled as he advised Conductor Epstine of the new rule. Epstine's crew had been caught by Mrs. Campbell, although every crew on the run had been doing the same thing. Epstine remarked at the time that Laws himself would have enjoyed a swim with the boys.

From him the conductors had

orders, for a time, to pick up and carry on to his destination any man seen packing his blankets beside the road. This order did not last long, for tricky rogues who were able to pay their fare used to outfit themselves with a blanket pack and impose on the generosity of the management. Their hoggishness resulted in the loss of free rides to many a poor devil who deserved a lift.

One morning the only passengers out of Mound House were a woman and her two children. Approaching Wabuska, the midway eating station, Conductor A. Y. Gale told her it would be her only chance to eat before Hawthorne. She answered that she thought she and the kids could stick it out until five o'clock. Gale and the other train hands ate, and as the train pulled out

Judging by This Photo, Made in 1887 at Keeler, the C.&C. Railroad Boys Stayed Away from the Saloon as Far as They Could, Even When Having Their Pictures Taken. The Saloon Is at the Extreme Right, Whereas the Railroaders Are Standing on the Left, with Frank Cagwin the Engineer Beside a Tree

Stations meant nothing in particular on the Carson & Colorado. The train would stop at any place on the main line to load or unload freight or passengers. Prospectors far away in the hills would leave their empty barrels alongside the track and the train crew would refill them with water. They would unload freight at any place a prospector desired, even by the carload, providing the prospector would furnish men to unload it.

Gale boarded the smoker to enjoy a cigar. Strolling into the passenger coach half an hour later he was amazed to find it vacant. He rushed up to the mail car, where the brakeman was playing seven-up with the postal clerk.

"Say," yelled Gale. "What became of that woman with the two kids?"

The brakeman did not know, for not having visited the passenger coach since leaving Wabuska, he had not missed her. But the mail clerk, who

Another View of No. 6, the C.&C.'s Little Wood-Burning Eight-Wheeler, in front of the Lakeview Hotel at Keeler Nearly Fifty Years ago

had come late from lunch, said he had seen her entering the dining room just as he left it, which was immediately before the parting whistle blew.

"Consarn it all!" ejaculated Gale, who was called "Deacon" because of the mildness of his profanity, "we'll have to back up five miles to get her."

And that is exactly what they did. For individual service the Carson & Colorado was unbeatable!

DURING nearly all the 90's the major revenue of the road came from shipments of soda and borax which were taken from Owens Lake. When the road was completed to Keeler quite a borax industry sprang up there. The lake water, incidentally, was hard on insects, and countless myriads of them lost their lives in its waves. So immense was the number that on some hot summer nights the stench from the lake smote passengers' nostrils five miles out of Keeler.

When the insects weren't so bad the townspeople used to hold bathing parties on moonlight nights. Their bathing suits were nightshirts weighted down with pieces of lead sewed into the bottom hems of the garments. Two Keeler ladies once invited two newly arrived railroad men to join them in a moonlight swim. The railroaders asked about bathing suits and were told that nightshirts would do. But the ladies forgot to tell them about the necessity for weights, so the boys went into the lake without the weights, and the bathing party broke up in a hurry.

Because of the chemicals which are responsible for this buoyancy, the waters of the lake are excellent for bathing. It is said they will cleanse a man of everything but original sin. In Keeler they used to tell of a miner from the Panamints who came to town with the accumulation of years of grime upon his person. He wanted to bathe, but after looking at the lake and smelling the water, he decided to get drunk first. Then he forgot to take

his clothes off before going in. He simply lay down with his body in the water and his head on the shore and fell asleep. When he awoke the next morning he found that the water had not only dissolved his clothing, but had removed a three-years' accumulation of whiskers!

I do know for a fact that Robert Rauhut, a Virginia City, Nev., barber once got into trouble with his customers by using Owens Lake water for a shampoo. He had been induced by a thrifty railway mail clerk from the Carson & Colorado line to invest in a five-gallon demijohn of what he ever afterward referred to as "Keeler water," and used it on his patrons with striking results. First their hair turned to a chemical blonde; then it became shaggy, straight and choppy; then it stuck up and out like lightning rods; and finally it fell out, leaving the victims bald! From that time on mention of "Keeler water" in his presence would stir him to tears of rage.

In 1900 the Carson & Colorado was sold to the Southern Pacific—a most unfortunate deal for the sellers. The road had hardly passed out of their hands when the Tonopah mines began to ship ore, and thousands of adventurers rushed into Southern Nevada. In one year the Southern Pacific took in more than the $2,750,000 it had paid for the pike.

Then followed the discovery and settlement of Goldfield, twenty-eight miles from Tonopah, and the revenues of the road were enormously increased. Other newly settled camps like Rhyolite and Manhattan swelled the profits of the road.

The loss of the Carson & Colorado business in itself was not the only one sustained by the original owners. They still held the Virginia & Truckee and that, up to the sale of the Carson & Colorado, had always enjoyed its share of the northbound traffic, for it was the connecting link with the Southern Pacific at Reno, and the bulk of the freight and passenger traffic went through that place to and from San Francisco.

But the Southern Pacific had no sooner acquired control of the Carson & Colorado when it constructed a cut-off which took all that away from the Virginia & Truckee. The cutoff ran from Churchill to Hazen, which left Mound House and Dayton high and dry. And the S. P. has recently abandoned the line from Churchill to Mound House, lock, stock and barrel.

And that isn't all. The Southern Pacific has asked the Interstate Commerce Commission's permission to abandon the 90-mile stretch from Mina, Nev., to Laws, Calif. According to the latest timetable, a train is run between these points only once a week—from Mina to Keeler on Tuesday, and return on Wednesday. By the time this sees print it may be pulled off.

Not many of the old-timers who used to run on the Carson & Colorado survive. Harry E. Epstine, who served on the line for twenty years and then became a stock broker, first in Tonopah and then in San Francisco, in which city he has been for several terms president of the San Francisco Stock Exchange, and Frank Cagwin, who was first an engineer and then a conductor, are the only survivors of whom I know. Cagwin, a railroader by instinct as well as occupation, though now retired, is spending the remaining years of his life at the railroad town of Sparks, Nevada, where he can hear the whistles toot and smell the engines, and where he can be closer to the actual country of the old Carson & Colorado.

# America's Only Railroad Station Chapel

IN old Russia, before the soviet, practically every railroad station contained an altar, where the pious peasants would invoke divine blessing upon their journey and even upon the baggage they carried. This custom was not carried over into the New World until just a few months ago, and even then in very modified form. When the Pennsylvania Railroad erected its huge new station at Thirtieth and Market Streets, Philadelphia, it set aside a beautiful suite of rooms to be used as a chapel, on the second floor of the great structure.

This is said to be the only chapel that is part of a railroad station in North America. Certainly it is the only one in the United States, and there is none in Canada that we know of.

*Courtesy of Railway Age, 30 Church St., N. Y. City.*

Originally it was intended to be used for funeral parties traveling by rail, as a sanctuary for the casket and the mourners, set apart from the swirl of traffic. As yet no official name has been given to this suite, although unofficially it is known as a chapel, funeral parlor, mortuary chamber, or retiring room for wedding couples or others desiring privacy and peace.

Elisha Lee, late vice president of the Pennsylvania, conceived this idea and died shortly after seeing it carried into effect. While seated in the chapel of an ocean liner he was so impressed by his surroundings that he decided to adapt them to another form of transportation, the railroad. His first thought was to have a chapel aboard the limited trains, as a modernization of the old custom of carrying a small church organ for Sunday services on the early transcontinental trains, but this was found to be impracticable.

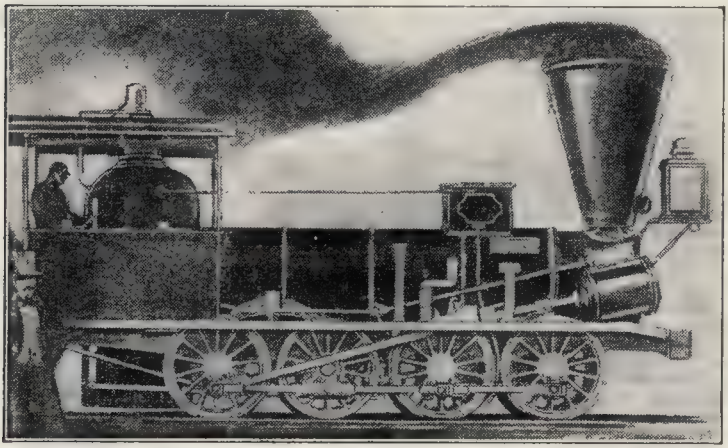
Mr. Lee planned the station chapel in consultation with his son-in-law, Greville A. G. Haslam, headmaster of Episcopal Academy, Philadelphia; also various clergymen; the station architects; Robert Farnum, chief engineer; and George Gibbs, artist.

A suggestion was made that the chapel be hung with fine old tapestries portraying religious subjects, but this idea was discarded because no religious subjects could be found that would be equally satisfactory to Catholics, Protestants and Jews, to say nothing of those who professed other beliefs or were freethinkers. Finally, a series of eight mural panels was decided upon, symbolizing the beauties of nature, with only one spiritualized human figure, that of a woman meditating. The artist intended her to be a cross between the Madonna and Mona Lisa. Her head and shoulders are draped with a shawl; her feet are bare. She is seated alone at twilight.

The room is isolated. No sound penetrates its cloistered seclusion. It is furnished with comfortable but dignified armchairs and davenports, with a thick green rug on the floor, and glass ceiling, all illuminated with soft blue and white reflected lights. The main chamber is twenty by forty feet. There are also retiring rooms, a large lobby, and a small marble crypt for the coffin, if any.—H. R. Edwards.

# TRUE TALES OF THE RAILS

**Actual Happenings Told by Eye Witnesses**



© *Republic Steel Corp.*

**The "Atlas" of the Philadelphia & Reading, Baldwin-Built in 1846, Was One of a Series of 8-8-0 Types Constructed for That Road. They Were Being Used at the Time of the Wreck of 1856**

# Seventy-Eight Years Ago

## By WILLIAM S. LEE

*Who Died Long Ago. This True Tale Is Based on His Testimony at the Investigation*

ON the day of the accident, Thursday, July 17, 1856, I was engineer on the down train (southbound). I was not a regular engineer, dentistry being my profession, but I had been in the employ of the North Pennsylvania Railroad Company (now the Reading) for about a year, and I knew how to run an engine.

My engine was the "Aramingo." There was no clock at the upper end of the road, Gwynned (now Gwynned Valley station, twenty miles out of the present Reading Terminal, Philadelphia), so we had no way of regulating our watches except in the city.

Our conductor, William Vanstavoren, known as "Van," seemed bright and cheerful on the morning of the 17th. I don't suppose he had any premonition that this was to be his last day of life.

We left Gwynned with a mixed train at 6 A.M. by Van's watch. Van had come up from Philadelphia the previous night. I am not aware if he had regulated his watch in the city that night, but it was his habit

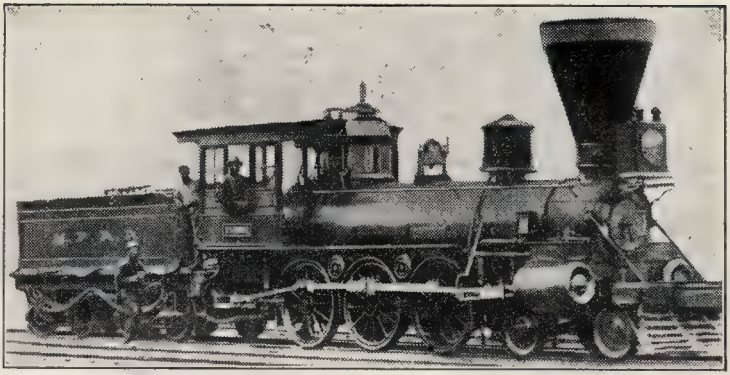


*Photo from W. D. Stowman, 7444 Forrest Ave., E. Germantown, Philadelphia, Pa.*

**The "Wyoming," No. 11, of the North Pennsylvania R. R., Was Constructed by Baldwin the Year after the Wreck at Ambler. She Had 19 x 22-Inch Cylinders, 50-Inch Drivers, Weighed 64,000 Lbs.**

to do so, as the company had printed rules to that effect framed and hung up in the engine cabs.

We had a baggage car, a passenger coach and a freight. We knew there would be an excursion coming up from Philadelphia on our single-tracked railroad, and we had instructions to watch out for it.

The excursion, as I learned later, was a Sunday-school picnic from St. Michael's R. C. Church,* Philadelphia. There were about twelve hundred passengers, mostly children, excited and happy, but still a bit sleepy at having been awakened so early. They looked forward to spending a hot midsummer day in the country. The spot selected was Schaef's Woods in the Whitemarsh Valley near Fort Washington (sixteen miles from the present Reading Terminal). Many carried huge baskets full of lunch, while the Sunday-school management took along ice cream for everybody.

The train was to run in two sections, each carrying six hundred persons. A. H. Fracker, master of transportation for the North Pennsylvania Railroad, issued these running orders:

**Excursion No. 1.—Leave Master St. at 5 a.m. and run to Fort Washington with a clear track by 6 a.m. Returning, follow flag of 6.15 p.m. train from Fort Washington and arrive at Master St. at 7.15 p.m.**

**Excursion No. 2.—Leave Master St. at 8.03 a.m. and follow flag of regular train from Fort Washington. The engine will follow the same train to Gwynned, turn, and follow back to Fort Washington. Returning, leave Fort Washington at 5.30 p.m. and run with clear track to Master St. by 8.50 p.m.**

**The train carrying flag for excursion will keep main track at passing places. Extra precaution must be taken by conductors and engineers carrying or following a flag, to prevent collision. Opposing train will wait 15 minutes on flag for excursion trains, then proceed at usual speed, keeping 15 minutes behind. Should excursion train get more than 15 minutes behind it must be kept out of the way of regular trains.**

These orders were not carried out. Failure to obey the last sentence set a new high mark in railroad casualties.

So many eager picnickers tried to climb aboard the first section, on the fatal morning of July 17th, that it was delayed until 5.09. When the train finally pulled out of the dingy little station it was overcrowd-

**This church was 100 years old Oct. 28, 1934.*

ed with *seven* hundred passengers instead of *six* hundred.

The first section consisted of one locomotive, ten passenger coaches, and one freight car. The freight carried the lunch baskets, ice cream, hammocks, swings, and equipment for outdoor sports.

A jinx hung over the crew. Henry Harrison, the engineer, was riding to death. Fireman John Butcher was going to be injured and Conductor Alfred F. Hoppel disgraced. Only the two brakemen, Lewis Page and Sanford M. Cornell, would return unhurt and with clean records.

WHILE Excursion No. 1 with eleven cars was heading northward on the single-track road, our three-car mixed local was proceeding southward to meet it. We had four miles to go on a down grade to make Fort Washington. At Wissahickon—the station just before Fort Washington—I said to my fireman:

"I wonder if the excursion has arrived."

We both thought the excursion had already reached our meeting place and was waiting on a sidetrack—or "sideling," as we called it then. I had seen smoke rising around the hill at Fort Washington. The excursion was due there at 6 A.M. We were due at 6.15, but were a few minutes late.

In those days it was customary for a southbound train to wait at Fort Washington fifteen minutes, if necessary, for an excursion train. Then, if it did not come, the southbound engineer was to proceed slowly and send a man ahead on horseback to warn the excursion that the down train was on its way. This we failed to do.

I asked Conductor Vanstavoren: "Is it time for us to leave the Wissahickon station?"

"Yes," he said. "Go on!"

But my fireman warned: "Go slow around that curve. The excursion may be standing on the main track."

Yes, that was possible. I did not want to take unnecessary chances. At Fort Washington we waited two minutes without seeing the excursion, while Van took on passengers and cans of milk for the city. It was then 6.17. I asked him for orders.

"Go ahead!" said Van.

"Very good," I answered, "but you had better not. There may be an accident."

Van was impatient to get going. We were already late. "Blow your whistle and run slow," he ordered.

As we rounded another curve I blew the whistle so loudly that I could not have heard the whistle of the approaching excursion. I shut off steam and let the train coast on its own impetus. Then I put on steam again to reach the next station, Dewey's Lane (now called Fellwick).

We were then making ten miles an hour. Suddenly I saw the shadow of the other train's smoke on a curving embankment.

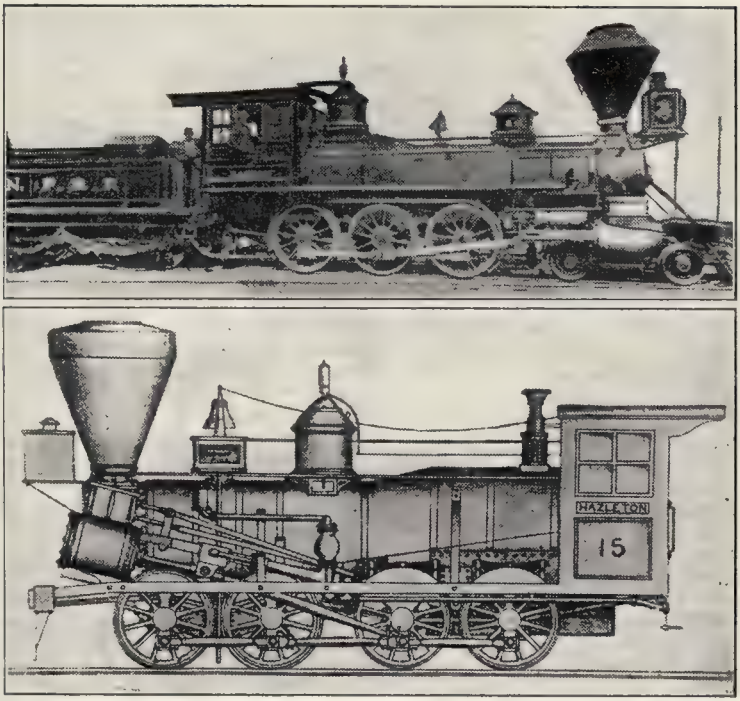
Reversing the Aramingo, I whistled for "Down brakes!" Our speed was reduced to about two miles an hour, but a collision was inevitable. My fireman and I leaped out of the cab just before the two iron monsters came together.

Fascinated with terror, I watched the crash. Each engine weighed about 47,000 pounds. First the excursion engine climbed over mine, with a din that could be heard for miles. Then the impact swung them around, the bottoms of both coming together. Finally the Aramingo rolled over to one side, and her boiler exploded.

FIVE cars of the excursion were shattered to kindling wood. It was a scene of indescribable horror. I found John Edwards, our baggagemaster, lying on the ground. He had broken a leg in jumping. I carried him to a safe distance. Then I assisted a man who had lost one leg and had the other broken. I rendered first aid, but I don't think he lived long.

Van was working nobly to assist the injured. There was a strained and tragic look in his eyes. He told me he was contemplating suicide.

John Butcher, fireman on the excursion, had been thrown thirty feet into a field, but was not seriously injured. His engineer, Henry Harrison, trying to jump, had fallen between his engine and tender and met death instantly.




*Photos from Reading Co.*

**(Upper) Similar to the "Wyoming" (Page 45) in Type and Dimensions, the "Easton," or No. 26 of the North Pennsylvania, Was Also Baldwin-Built. So Was N.P. No. 15, the "Hazleton" (Lower), an 0-8-0 Which Had 17 x 20-Inch Cylinders and 43-Inch Drivers. She Was First Used in 1857**

A hot July sun beat down mercilessly. The mercury climbed higher and higher. Not one tree was near to give shade.

Farm hands left work in the fields to assist in rescue of the living and disposal of the dead. They raised the excursion engine and took out several bodies from underneath. Water brought from a nearby creek was thrown on the flames. The gesture was futile. Five excursion coaches were burned so completely that nothing was left except wheels and axles in a tangled mass of charred débris.

About nine o'clock, nearly three hours after the collision, the Congress Engine & Hose Company of Chestnut Hill, a neighboring community, came dashing up. The horses were in a foam from fast running, but they arrived too late to do any good. At the same time four doctors arrived.

The heroine of this disaster was Mrs. Mary Benjamin Ambler, widow of Andrew Ambler, who had built a fulling mill at Wissahickon some years before. As soon as she learned of the wreck, Mrs. Ambler ran over to the scene with lint, bandages and other surgical supplies. All day, under the broiling sun, she cared for those who desperately needed help, without stopping herself to eat or drink.

Dying men looked up into her eyes and called her "angel." Injured children were soothed by the gentle touch of her hand. Under Mary Ambler's direction, stretchers were made from house shutters and the victims were taken to her house and the mill. There she nursed them until they were able to be moved to their own homes.

In all, sixty-six persons were killed and at least a hundred seriously hurt. It was, at that time, America's worst rail disaster. One of those who met death was the Rev. Daniel Sheridan, rector of St. Michael's Church. A watch found on his body was stopped at 6.18, the moment of the crash!

EVEN before the bodies were removed, Coroner Delevau, of Montgomery County, summoned me to an inquest. Also Conductor Alfred F. Hoppel, the brakeman of the excursion, and other witnesses. I told what I knew about the collision, after which Mr. Hoppel said:

"The excursion left Master Street at 5.09 A.M. Every few miles we had to stop on account of the track being wet with dew. When we reached Tacony grade we were detained six or eight minutes by slippery tracks and insufficient head of steam.

"At this place I got on the engine and told Engineer Harrison we could make Dewey's Lane; after that I would see if we had sufficient steam to reach Fort Washington. We proceeded until we saw the down train approaching. Then Mr. Harrison reversed his engine and jumped. I jumped also. My watch said 6.18."

Conductor Hoppel admitted the excursion train was more than fifteen minutes late. "The time for the regular train to leave the station at Fort Washington is ten minutes after timetable time," he said. "From my understanding of the instructions, I supposed that, in consequence of our non-arrival, the down train would leave Fort Washington at 6.30. Otherwise I would not have run on."

The coroner censured Hoppel for not waiting on the sidetrack and for speeding recklessly around a dangerous curve. "At the moment of the collision," Mr. Delevau pointed out, "the regular train had nearly stopped, while the excursion was still moving at the rate of thirty miles an hour."

He exonerated Van and me. But it was too late to clear Van. The poor fellow's mind had been unhinged by the tragedy. After working heroically to save as many passengers as he could, Conductor Vanstavoren had taken his own life. May he rest in peace!

Mary Ambler died in 1868, three years after the Civil War and twelve years after the collision in which her noble efforts had won commendation from railroad officials; and a few months later the Ambler mill was destroyed by fire. Thereupon the railroad company honored her memory by changing the name of Wissahickon station to Ambler. And Ambler it still is.

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# War Passenger

## By EMMETT WATSON

*Illustrated by the Author*

THREE days and three nights in a box car through France! That was sump'n! Back in November, 1917, our regiment had arrived from America at the French port of Brest. After being forced to stay on board ship for five days, until trains could be obtained to take us to our training area, we were taken ashore one morning by lighters and marched to the railroad yards, where most of us had our first view of a French train. Those little box cars on four wheels

Forty to a Car, We Climbed Aboard

were funny. The French name for a freight car is " wagon," and that about describes it in English.

On the side of each door was lettered *40 hommes—8 chevaux,* which meant the car was to hold not more than forty men or eight horses. We were divided into lots of forty to a car and told to climb aboard.

There were removable benches down the center and sides of each car for the 40 *hommes* to get what comfort they could. In case the 8 *chevaux* were passengers the benches were thrown out and straw spread on the floor. We learned later on from the experience of this trip that the horses had the right idea. After that trip we, too, spread straw and by a lot of careful planning all of us could actually lie down on the floor at once.

The fact that horses had been the most recent occupants of our car was very much in evidence. To put it delicately, it was very objectionable at first.

These extensive preparations gave us the first inkling of the length of our journey. No one seemed to know just where we were headed. Rumors were plentiful. One of them sounded good to us. It was that we were going to be paraded in Paris just to be shown off to the French people. But actually I was in France almost a year before I saw Paris.

Finally our train was all set to move. *Twe-e-t, twe-e-e-t* came from the engine whistle. This caused another general laugh. It sounded like a peanut whistle which had gone haywire.

There was much shouting back and forth between the people and ourselves as we passed through the small villages and towns. We with our *" Vive la*

*France"* and they with *"Vive l'Amerique"* when they realized who we were. Then one of our wits conceived the idea of yelling unprintable words to all the French he saw, and they, thinking it some form of American greeting, would reply with the same word as nearly as they could pronounce it.

Emmett Watson, Who Paints Our Front Covers and Illustrates Many of Our Stories. He Is the Author of "War Passenger"

OUR train was continually being shoved into sidings to clear the way for faster ones. It seems we were not supposed to interfere with the regular passenger, freight or French troop trains. We never knew how long these stops were to be —sometimes for only a few moments, and then again for hours at a time. Usually the stops were most welcome.

France was then having its annual rainy spell, for which it is well-known. The weather was raw and very cold, and as that first night drew on we wondered about sleep. With all passengers jammed into such close quarters the air was considerably less than fresh. The upper part of the car sides were hinged and could be dropped, but not in that cold weather. So the side doors, which were of sliding type, were opened a trifle, even though there was complaining from the men nearby.

With not enough room for anyone to lie down, it was impossible to unroll packs to get out blankets. The only way to get any sleep was to sit back to back on the low benches, and doze.

Sometime early in the morning we were awakened by a loud banging on the side of the car. The train was at a stop near a large French cantonment, and here were each served with a huge cup of alleged coffee, which tasted mighty peculiar. Later we learned it contained about half cognac. It warmed us up nicely.

That next day was pretty much a repetition of the first, except that the weather was getting milder. This fact started fresh rumors as to our destination. One was that we were going right on through France and were to do our training with the Italians instead of the French. Even our officers had no idea where we were headed.

Twice during the day our engine started from sidings with only a part of the train in tow. One of our bright buck privates had "pulled the pin" somewhere along the string of cars. He thought it would be a good joke on the train crew. But they couldn't take a joke, for they stormed loudly.

The major of our battalion was told about it next time it happened. He called our attention to the seriousness of the offense and pointed out that these delays might cause the section following to crash into our rear. His threatened courtmartial to any man caught tampering with the train had the desired effect.

By the third day many of our men were among the missing. They just got left behind, for they couldn't make it back to the train before it pulled out of a siding. Some were picked up by the several sections following, and a few did not show up for weeks.

The third night we all slept like logs from sheer exhaustion. Morning found our train at its destination—a little railroad town named Void. Near this point we were to go into training for trench warfare. We could hear the steady rumble of the big guns. Front line trenches were only 25 miles away!

Three days and three nights by troop train, and the distance in a straight line only as far as from New York to Detroit! We must have zigzagged over most of France.

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# Big John Jones of the I.—G. N.

## By BOZO TEXINO

EVERY homeguard and boomer who worked on the San Antonio division of the International-Great Northern, now part of the Mo. P. Lines, between the early '90's and late '20's remembers John R. Jones, who was retired on pension in 1925 and died a few months ago. Big John fought his way up with his fists from brakeman to superintendent.

He was in more than a hundred fights and never used any weapon except his fists. He never started a fight, never ran from one, and never lost one. He would discharge any employees caught scrapping on company property, but was always open for any engagement if someone just had to have his hair combed.

A tall, raw-boned, red-faced Westerner with blue eyes, he stood about six and a half feet and weighed around 225 pounds. He always wore a big, black broad-brimmed hat, a No. 10 shoe, and covered all the ground that he stood on.

He told me the nearest he ever came to losing a fight was in the '90's, when working as a conductor. He was loading a train of cattle when about a dozen cowboys decided to give him a good shellacking. They fought around the train, chuck wagon and stock pens, but Big John finally knocked them all cold. Another time a coach load of Roosevelt's Rough Riders tried to beat him up, but he, the brakeman and an army officer got the bad boys quieted down.

There were two rules in the book that he wouldn't stand to see violated, and these were Rules G and H.* He hated anyone who drank or smoked cigarettes. I have seen him knock cigarettes out of jellybean employees' mouths, and run drunken switchmen clean out of the yard limits.

Once I was deadheading in a caboose. The conductor was sitting at his desk making out a wheel report, smoking a cigarette, when Big John headed into the crummy. The skipper swallowed the cigarette, fire and all, and never batted an eye.

** Rule G: The use of intoxicants or narcotics is prohibited.*

*Rule H: The use of tobacco by employees while on duty in or about passenger stations, or on passenger cars, is prohibited.*

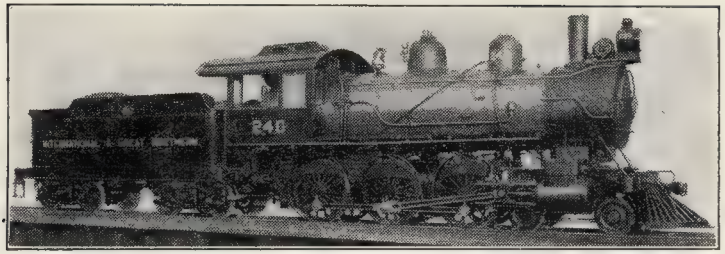


*Photo from Joseph Lavelle*

**A Low-Wheeled, Tough Little 4-6-0 Built Years Ago by Baldwin for the I.-G.N.**

In 1918 I was firing the third shift on the Austin pusher engine for a lazy, sleepy-headed engineer. A hot shot freight train came along about three A.M. We backed the helper engine onto the caboose, and started rooting him up the Colorado River Mountain.

My hoghead hooked the reverse lever almost up in the center of the quadrant. He gave her about half a throttle, put his feet on top of the automatic brake valve, pulled his cap down over his eyes, leaned back on the back rest and said to me:

"Here's where I get my undisturbed rest. Wake me up when we get on top of the mountain."

WE had only gone a short distance when the drivers of the big freight engine on the head end began to slip because of a heavy dew and a heavy train. Our engine wasn't getting enough steam to turn her wheels, and my little boy blue hoghead couldn't even hear the other engineer blow his horn for more help, because he was in the hay fast asleep.

We were on short time to make Vinson, a siding on top of the mountain, for a passenger extra with rights over us. I had just put a plaster of about a dozen scoops of coal in the firebox when I saw someone climbing over the coal gates. It was Big John. He walked right between me and the hoghead so I couldn't wake the man up.

John didn't say a word. He took a look at me, the water glass, steam gage, and saw that everything was percolating all right. He next cast his eyes at the hoghead. Then he took him by the arm and gave him a few shakes, but the engineer would not rouse—he thought I was fooling with him. So he just turned over and went on snoring in a big way.

Big John put his right hand under the engineer's shoulders, his left under his knees, picked him up like a baby and threw him down in the deck as hard as he could.

Then Big John climbed on the seatbox and sat down. He put the Johnson Bar down in the last notch, snatched the boiler handle wide open, and switched on the sander valve. Clinkers as big as beer kegs started dancing a jig inside the firebox.

By this time the hoghead had just begun to realize what was taking place. I thought he was going to do a nose dive into the Colorado Canyon, when Big John turned to me and said:

"You'd better keep this engine hot or I'll throw you over the right-o'-way fence."

I reached for the scoop and started

baling coal. Big John looked at the dethroned hoghead and started spilling good advice:

"I'm getting tired of these freight trains dragging you sleepy hogheads up this mountain, coupled on to a caboose and masquerading as a helper engine. From now on you're going to help or there's gonna be some new faces on this job."

The hoghead grabbed the coal pick, scaled over the coal gates and started digging down Arkansas smokeless slack and I was burning it as fast as he could rake it down.

On arriving at the top of the mountain, before the brakeman cut off the helper engine, John went to the caboose. We never heard another word from him about the dreadful night, although the engineer thought he was canned.

EVEN at the worst John was goodhearted. I have seen him discharge employees, keep them off a week or so and put them back and pay them for what time they'd lost before the griever would have time to take up the case with him.

Big John always liked me because I didn't use tobacco, and he would give me almost anything I wanted. The orneriest boomer switchman I ever knew got canned out of the San Antonio yard. He was so useless the B. R. T. griever refused to handle his case. This boomer came to me and asked me to get John to reinstate him.

So I walked into his office unannounced, pulled off my hat, and sat down. As soon as he got through reading a letter, he asked what I had on my mind. I told him. He pounded his desk with his fist till he shook the whole passenger station and then said:

"I thought you'd have more respect for me than to come here and ask me to reinstate that punk. If you'll just show me one good thing this man ever done I'll put him back to work."

I stood up, cleared my throat, walked near the door and said, "He doesn't smoke cigarettes."

Big John scratched his head, pulled off his glasses and laid them on his desk. I was afraid he was going to take after me, but he said:

"I'll give him one more trial, but if he doesn't tend to business better than before, I'm going down in the yard and run him out of town myself."

I had not told a lie. This boomer didn't smoke cigarettes. But he would smoke opium, mariahuana, d r i n k canned heat or beat a board bill. He worked a couple of days so he could get a service letter, and then resigned.

John spent his declining years on a farm in Missouri, visiting the San Antonio division every few years. The last time I saw him was in Taylor Yard. He asked about all the old-timers and wanted to know how his successor, A. B. Kelly, ran the division, and insisted that I tell him, for it's human nature for a rail to want to know if the fellow who took his place is doing as well as he did.

"Mr. Kelly is a good man and a good superintendent," I told him. "If you will tote fair with him he will tote fair with you. But he has one drawback."

Big John wanted to know right now what the drawback was. He almost had tears in his eyes while I was talking. So I up and informed him that A. B. Kelly smoked cigarettes.

John looked up the track, turned around and looked down the track. He pulled off his big broad-brimmed hat, scratched his head and said:

"Yes. And so do some ladies."

# The Boomers' Corner

IN 1898 I landed a job as brakeman out of Springfield, Mo., on the old Kansas City, Fort Scott & Memphis and worked 30 days as student without pay. I well remember the first trip I made for pay. I rode out on top all the way from Springfield to Thayer, 139 miles. Brakemen were required to be on top while approaching stations, also while ascending and descending all grades. But as there were never more than 2 or 3 cars with air brakes, and sometimes none, we had to be out regardless of weather.

Very few cars had air, and only about half the cars were equipped with the old "Jenny" couplers. I was lucky never to get a hand pinched or lose a finger. Front ends of engines were equipped with the old pilot bars. When coupling into cars, a brakeman had to hold this bar up. I judge it weighed about 100 lbs., and there were 2 strips on the pilot, each about 4 inches wide, to stand on while making the coupling.

One night we were coming west out of Thayer. I was head brakeman, and had 3 cars to set out in Mountain Grove, where a "split derailer" was supposed to stand for the crossover. Someone had left it wrong. I backed the cars and engine through the thing, cut the cars off, and gave the engineer a signal to go ahead. Since there was no light on the switch, the engineer had not noticed it was wrong. He started through. We turned the engine over, blocking the main line about 10 hours. I figured that was the end of my railroading, but got off with 15 "brownies."

Not long after that, coming up Koshkonong Hill one dark night, we discovered a light ahead of us. It looked like someone waving a chunk of fire. As we were running slow, all that was necessary to stop the train was to shut off the engine. The engineer told me:

"Go out and see what that old farmer wants. I suppose some of his cows are on the track."

It was much worse than that. An old wooden bridge was burned out a short distance ahead, just around the curve. But for the farmer's warning we would have gone into it!

I left the K. C., F. S. & M. shortly after the Frisco took it over, then I became a boomer. I worked a few days for the M. K. & T. from Denison, Tex., to Sapulpa, Okla.; then for the Rock Island and the Mo. P. in 1902. Promoted to conductor in 1904.

In 1907 my brother (E. S. Dellinger) wanted to get a job braking. I did not want him to go on the road; I was afraid he might get killed, and I knew Dad would blame me if anything happened. But I took E. S. on the caboose to Osawatomie, Kan., and we went into the office of Trainmaster Summers (Mo. P.). I asked Summers if he could give the kid a job. Summers asked: "What's he been doing?" I said: "Teaching school."

Summers said: "He looks more like a schoolboy than a teacher. He couldn't set a brake, light as he is, but I'll give him a job if you'll vouch for him being twenty-one. Now, Bill, you take this kid out with you. Teach him not to be afraid of engines and cars, then we'll put him on local."

E. S. was braking for me once on what we called the swing job. We came out of K. C. on a merchandise run, and had one car to set out at Paola, Kan. We were going over the train heading down into Paola. She was running pretty fast, and I was ahead of E. S. As I went to step from one car to the other I missed my step and fell between the cars. But I caught the brake wheel as I went down. When I got back up on the car, my brother was so scared he could not talk for a moment. Finally he said: "My God, Bill! How did you ever get back on top?"

"That's nothing," I said. "You'll soon get used to little things like that." But he didn't think so. One morning he said: "Bill, I've quit the job." I asked what was wrong. He said: "The end of a running board broke with me, and I just about went under. Such an accident won't happen to me but once." My brother went back home, farmed, taught school, and worked in a store. But he liked the iron road, and when father died he went to Springfield and got a job braking on the Frisco. After a year and a half of it, with dwindling prospects of holding a job, he went back to teaching.

For the third and last time he came to Kansas City, and got a job as brakeman on the Frisco, where my 3 sons and I were working. He worked about 6 months, and then returned to teaching school, and from that to story writing, to which I think he is much better adapted.

After working for a lot of roads, I finally landed on the Frisco again. I have been working for them out of K. C. for 24 years in train service. Have seen many changes and improvements. When I first took up railroading, the largest cars we had were 40,000 lbs. capacity. Today we have them over 140,000. In the early days we handled 12 to 16 cars in a train. Recently I have handled as many as 165. Other roads handle many more than that.

When I started on the road, wrecks were so numerous that the wrecker was kept steamed up and ready to go at all times. Now it's different. We have not had a wreck on the Frisco's Northern Div., where I work, for as long as I can remember; and we make a speed of 45 miles an hour with our freight trains. We don't need any wrecker. I think wrecks are just as rare on other roads also.—WM. F. DELLINGER, 1614 Summit St., Kansas City, Mo.

# Summertime Snow

By JAMES W. EARP

Rock Island Conductor; Author of 68 Other Stories In This Magazine Since 1916

*It Was a Strange Problem That Mary Dolan Brought to Enginemen on the Siwash Division*

A RUMBLING roar was followed by a shower of cinders and a cloud of smoke as the "Golden Gate Limited" thundered by the little switch shanty. The old boomer who was waiting for a westbound freight looked up as "Humpy" Cain turned to him with a smile.

"That was Tommy Brannigan. Comes into town like hell in a whirlwind and goes out the same way. Give him an engine big enough and he'd outrun the Devil himself. Old 'Daredevil' Dolan used to throw a mean wheel, but he never had nothing on his son-in-law."

"I remember Dolan," nodded the old boomer. "Whatever became of him?"

"He was pensioned about two years ago," Humpy replied.

"You don't tell me!" The old boomer looked surprised. "I thought they were going to fire him. When I left here Dolan was nuttier than a pet coon."

"Not Dolan!" Humpy sniffed. "You've got your wires twisted. If Daredevil Dolan was nutty then I've been overdue at the asylum for ten years."

"Well, he was," the old boomer insisted. "Seems like he'd killed a little gypsy girl in Peter's Pass and the mamma of the kid puts a curse on the old man, saying he would die in the Pass when snow fell in the summertime. From then on the old hogger was so busy looking for spooks and the snow he couldn't make the time on the Limited. They put him on a slower run, but no use. On top of that the firemen got to refusing to fire for him. They was talking about firing him when I got canned. I often wondered what happened to him. Evidently he must have beat the curse some way."

"Dolan could beat a dozen curses," spoke up "Knowitall" Bonner, sage of the switch shanty. "But it was Brannigan who saw the snow in the Pass that summer night, not Dolan. Only for Dolan they would both have been killed."

"So the gypsy's curse did come true?" exclaimed the old boomer.

"That," Knowitall smiled, "is what makes the story."

"Shoot," begged the old boomer.

And Knowitall, always willing to spin a yarn, obliged.

IT was Dolan who made the trial run with the Fast Mail. That run landed the contract for the T. K. & P. and set a record for speed which the rival roads shot at for years in vain. However, Dolan's reputation was made long before that. The nickname he got after the Dearville flood.

And a daredevil he was in those days—a daredevil who handled his engine as a jockey does his mount, with a black cap perched rakishly over his right ear, a smile on his map of Ireland face and an old corncob pipe turned upside down in his mouth. When section gangs heard him whistle they took to the fields for safety, and section foremen swore it took the rest of the day to put the ballast back on the tracks after Dolan had passed by.

But they admired him and loved him on the old Siwash Division. A speedy runner and a safe one. Never a wreck or a derailment. Dolan broke records as easily as Mary, his blue-eyed, black-haired daughter, broke hearts. Half the young fellows in the town were in love with her and wanting to marry her. Tommy Brannigan was among them. He was Dolan's fireman. The odds were on Tommy up to the night that Carson, another fireman, joined the brigade of suitors. After that, it was another story.

It began the night of the Firemen's Annual Ball. Carson was there. He was a switch engine man, never would be anything else. To this day I never see a collar ad that I don't think of Carson, his wavy brown hair, his white hands, his brown eyes.

A handsome lad, but he could fire an engine, even if he did look as if he had just stepped out of a tailor's bandbox. Carson boasted that lots of the girls footed the bills for the privilege of a date with him. He was a born heartbreaker, and he knew it better than anyone.

None of us ever dreamed of his picking out Mary. Not with Tommy Brannigan as her almost steady, who would have laid down his life for her at her

asking, and Dolan being what he was —the railroad's most famous engineer. The first time he danced with her, most of us put it down to pure courtesy. But after the third straight dance with the switch engine dude we all sat up and took notice.

"This ought to be good," said one of the women at the dance. "Two heartbreakers together. The irresistible force and the immovable object have met at last."

"He won't go very far there," put in another. "Daredevil Dolan will put a stop to that right now."

"Or Tommy Brannigan," added one of the husbands.

In that they were all wrong. Dolan was there, but he made no move to interfere. Being the redheaded Irishman he was, Tommy Brannigan did interfere, to his sorrow. That was after the third dance Mary had with Carson.

"I wish you wouldn't dance any more with Carson, Mary," Tommy told her. "He's not your kind."

"But he's such a wonderful dancer!" Mary raved. "Just like floating on air. I could die dancing with a man like that. Honestly, Tommy, he's the handsomest man I ever saw in all my life. Don't you think so?"

"No!" Tommy growled. "I don't."

"You're jealous," Mary laughed pleasantly.

"Just the same, don't dance with him any more," Tommy warned her.

The Dolans were noted for not liking bosses. No other suitor would have dared talk like that to her. She threw back her black head angrily.

"Don't talk like that to me, Tommy Brannigan. I'm not your servant. I'll dance with whom I please. And what could you do, if I did?"

"I'll wait till you do," Tommy answered coldly. "Then I'll show you."

HE walked away, leaving Mary fighting mad. So was Tommy, for that matter. But he did not rage. Tommy was not that kind. I think it was his quietness, his steadfastness that had helped him hold the inside track over all of Mary's suitors. There was a hint of strength in Tommy. In spite of his great love for her, she had never been able to bend him completely to her will.

Oh, yes, Mary danced with Carson. Perhaps it was to show her independence. If she expected Tommy to come running to her to beg dances she was mistaken. Tommy took to dancing with Alice Wilson; also the Widow Stitts, whose husband had left her ten thousand dollars life insurance and who was in the market for another man.

Not once during the rest of the evening did Mary and Tommy dance together. The "Home, Sweet Home" waltz was with Carson for Mary. Battle smoke was in the air. Mary was furious; Tommy cold and silent.

"I'll never go to another dance with you again, Tommy Brannigan!" Mary stormed. "You disgraced me before everybody by your actions."

"You disgraced yourself," Tommy retorted. "And made a monkey out of me."

"You're a cheap sport," said Mary.

"Perhaps," Tommy admitted. "But not cheap enough to compete for your favors against a man like Carson."

"You're not going to get the chance again," Mary raged. "You and I are quits, Tommy Brannigan. I never want to see you again. Never!"

Tommy stared. "You mean that, Mary?" he asked.

"I do," Mary flung at him. "You talk about Mr. Carson, but at least he has manners and is a gentleman.

That's more than you will ever be. A woman could be proud of a man like that."

"I see," Tommy nodded. "I'm sorry, Mary."

They parted at the Dolan gate. Mary in tears, Tommy half stunned. Out on the road the next day Tommy baled coal into the firebox with a thoughtful face. If Dolan noticed he said nothing. He was wise. Never a question from him as to why Tommy had not been up to the house.

Dolan knew. So did everyone else in town. Mary was going everywhere with Carson. It was that which caused Tommy to make his decision.

"I'm leaving Pineville, Tim," he told Dolan one day. "I'm taking a freight turn."

Dolan looked at his pipe and then out the cab window. "I think you're foolish. No general ever won a battle by retreating from the field. What is worth having is worth fighting for."

"Love should not have to be fought for," Tommy said stubbornly. "She prefers Carson. She told me so. I'm stepping aside gracefully. It will be hard to leave you, Tim, but better for all concerned." He paused. "I had hoped you would not let her run around with Carson."

"I would be a foolish man to tell her no," Dolan replied. "The Dolans do not take kindly to dictation. And forbidden things are always sweetest."

Tommy dropped the subject. A few days later he went to the freight job on the Marland Branch. That was in October.

UP on the Marland Branch Tommy Brannigan worked hard trying to forget the girl he loved. No easy task when the girl's blue eyes looked back at him from every firebox door. A dozen times he was on the verge of throwing up the job and returning to Pineville. Only his pride kept him from it. That and Mary's parting words.

Spring came to the Siwash Division and the world in general, but not to the heart of Tommy Brannigan. It was then that Dolan's turn came up for a fireman. The urge to return was almost irresistible. What puzzled Tommy was that the bulletin called for the "Overland Flyer" instead of the "Pride of the Rockies." He wrote out a bid only to tear it up later. To his surprise a young fireman was assigned to the turn.

After that a succession of bulletins advertised Dolan's turn. Those bulletins bewildered Tommy. Of course, Dolan was no easy man to fire for. But that could not explain the constant changing of firemen. The answer came one day when the last fireman to hold Dolan's turn showed up at Marland.

"Do not breathe this to a living soul, Brannigan," said the fireman. "The fact is, Dolan has gone nutty—plumb cuckoo—since he killed the little gypsy girl in Peter's Pass. Lost his nerve. Couldn't make the Limited's time, so they put him on the Flyer. Same there. Local officials are worried. If the big boys ever get wise to what's wrong, Dolan will be out of a job."

"I can't believe it," Tommy muttered. "That doesn't sound like Dolan. He wouldn't lose his nerve over an accident that couldn't be helped."

"It wasn't the accident," protested the fireman. "It was the curse."

"Curse?" Tommy scoffed. "How silly. Dolan would laugh at such a thing." He frowned "And who cursed him?"

"The gypsy girl's mother. It must have been a terrible curse from what I hear. She said he would lose his health and his wealth and his job before another winter came, that bad luck and death would be the lot of him and his to the end. All of his loved ones, so the old gypsy said, would die in the snow just like her child, but his own grave would be a snowbank in the Pass that even the sun of the summer could not melt."

"And Dolan believed that rubbish?" Tommy asked.

"Maybe not then, but he sure does now," said the fireman. "The bank where he kept his money failed and he lost all he had. Then the two homes he had in Englewood burned down without any insurance. The insurance had not been renewed by Dolan. Forgot it, I guess. Soon after that, he got word that his brother, Bob Dolan, roadmaster on the Mohawk, was found frozen to death in a snowdrift. They say his speeder must have jumped the track and thrown him against something which stunned him. The fact remains he is dead as the old gypsy predicted."

"That's queer," Tommy mused. "I don't understand it. He never used to be superstitious."

"You'd never know Dolan," went on the fireman. "He's ages older. Talks to himself on the run, and is always looking for snow in the Pass. That's why they can't keep a fireman with him. They talk of putting him on a plug run or letting him go. The gypsy curse has sure got him."

"To hell with curses!" Tommy exploded wrathfully. "I'll fire for him, and all the spooks in the world can ride with us if they want to. Timothy Dolan is not going on any plug run if I can help it. We'll beat the gypsy curse or know the reason why. I'm going back to Pineville."

TOMMY did. It was a good excuse, at least. Mrs. Murphy, his old landlady who had always been more or less of a mother to him, welcomed him. From her he learned about Dolan—and Mary.

"She's engaged to marry Carson, the scalawag," Mrs. Murphy told him. "Everybody is surprised because they never figured he was a marrying man. I'll always think he brought them the bad luck in place of the gypsy. Goodness knows, they've had little else since the two got engaged. But she seems mighty happy and proud over her catch, bad luck to him."

Tommy said nothing to this. After the Widow Murphy had run out of talk, Tommy went down to the roundhouse to see about the turn with Dolan. He had been assigned to it. On his way out, Master Mechanic Allison called to him.

"I see you got Dolan's turn, son," he began. "I suppose you know what has been going on?"

"Yes," said Tommy.

"See if you can get him to make the time," Allison begged. "We all like Dolan, would do anything to help him. But we have come to the end of our rope. The higher officials are getting curious. You know how crazy they are about their passenger runs. We can't go on forever putting the blame on the engines. That reflects back on us and puts us in bad."

"You won't have to make excuses any more," Tommy promised. "Dolan will make the time with me. He always did. He'll do it again."

"I hope so," Allison sighed. "It's all up to you."

Tommy caught the run that night.

Dolan was oiling around when Tommy went out to where the 999 was waiting. But it was not the Dolan Tommy used to know. No longer was the black cap perched jauntily over the right ear. Instead it was pulled down tightly over his forehead. The corncob pipe was clenched between his teeth and right side up, and the blue eyes held the shadows of a thousand fears and sorrows. The old Daredevil looked at Tommy as at another ghost.

"You?" was all he said.

"Me," Tommy replied, holding out his hand. "I've come back."

Dolan ignored the outstretched hand and climbed into the cab just as the engine herder gave them the signal to come back to the train. Conductor Avery was waiting with the orders. As soon as he had read them to Dolan he hurried away. In the olden days conductors had always stopped to chat awhile with Dolan.

Tommy finished taking water. They highballed. A few miles out of Elmwood they swung into the narrow winding gorge known as Peter's Pass. It was when they struck the first curve that Dolan began to squirm on his seat.

A moment later he had eased off the throttle and was leaning far out the window to gaze at the track ahead. Dolan's blue eyes were wide and staring, his whole body tense as if under a strain, and his lips were moving, although no words came.

The engine began to slow down until it was making a bare twenty miles an hour. That was enough for Tommy. He crossed and took hold of the throttle. One pull and the 999 responded like the thoroughbred it was. Dolan gave a gasp.

"Don't, lad!" he said. "We must go slow."

"Not tonight," Tommy gritted. "We're going through on time. Widen on her. If you're afraid to run, let me take her. I'll make the time."

Dolan shook his head. "Soon we'll be there, lad. I'll show you where I killed her. Such a pretty child she was, with her brown hair and eyes. As pretty as my Mary ever dared be."

"Never mind that," Tommy said. "Forget it."

"Forget it!" Dolan shrilled. "I wish I could forget the dying child and the curses of her mother, curses that are coming true one by one."

"Shame!" Tommy snapped. "To think a good Irishman like you would give heed to the words of an ignorant gypsy. Go take my seat. I'll run the engine if a thousand curses from a thousand gypsies were on us all."

And before Dolan could stop him, Tommy had given the throttle another yank. Dolan screamed as the engine leaped forward. His hands sought the brake valve but Tommy blocked him. The same with the throttle.

"We'll all be killed," Dolan shrieked. "Stop, lad—for God's sake, stop!"

But Tommy did not stop. He lifted Dolan bodily and deposited him on the other seat across the cab. Another fire and Tommy was back at the throttle. The huge engine tore through the Pass that night like a meteor through the sky. All the while Dolan sat hunched on Tommy's seat, trembling in every limb.

"Death waits," he yelled to Tommy once, a bony finger pointing down the track. "Soon you'll see the snow waiting for us. Banks of it, lad. Shrouds for you and me they are. She said so."

Tommy's heart grew heavy, but he never slackened the pace. It seemed an eternity before they were out of the

Pass and on the straight stretch of track leading into Dearville. Wiping the cold sweat from his face he turned to Dolan.

"Take her, Tim. We're through now."

Dolan lifted a haggard face. "You were foolish, lad. Now the curse will be upon you as well as me."

"I'll risk the curses," said Tommy grimly. "But curse or no curse, we're making the time on this run from now on, even if I have to run the engine myself."

THEY were on time at Columbia. Up in the offices the dispatchers commented on it. So did Allison. When the Flyer returned to Pineville on time the next night, Allison stopped Tommy on his way to the washroom.

"Nice work, son," he praised. "I knew you could do it. Keep it up."

"I intend to," Tommy replied.

He passed on, leaving Allison smiling. Just outside the gate he met Mary Dolan hurrying towards the roundhouse. No doubt, on her way to meet Carson and walk home with him, Tommy thought. And the feeling of loneliness in his heart deepened. He lifted his hat, not daring to hope she would speak. She did not, but she nodded and half paused, then seemed to change her mind and hurried on.

Two more trips Tommy made before he saw Mary Dolan again. That was at the church social. It was in the hope of seeing Mary that Tommy went. He was not disappointed. Mary was there, waiting on tables. So was Carson, his handsome face wearing a scowl. Peevishly and ill at ease he stood aloof, showing his feelings plainly for all to see that he was not finding any pleasure or enjoyment there. Dolan was absent.

"He feels his disgrace," stated Mrs. Murphy. "Folks pity him, and the Dolans can't stand pity. Mary is no different. Look at the way she holds up her head, proudest of the proud. She'll be needing it. A poor market she is driving her ducks to this June when she weds that scalawag of a Carson."

Tommy said nothing. He was watching Mary the while. She laughed and joked with those at the tables, but Tommy sensed a false note. There were circles under the blue eyes which belied complete peace of mind and happiness.

"Mr. Allison has told me what you did for Daddy," she began when she came to his table to wait on him, pretending the while to clear the table. "I don't suppose you care, but I want to tell you how much mother and I appreciate it. We've been so worried. I never dreamed you would ever come back to Pineville."

"I had to come back," said Tommy truthfully. "Your father was a friend to me when I needed it most. You tell your mother not to worry. I'll look after Tim."

Tears came into Mary Dolan's eyes, but she wiped them away quickly. At the same time Tommy saw Carson coming towards them. He drew Mary aside and talked earnestly. What he said Tommy never knew until long afterwards. But the hurt in Mary's blue eyes told Tommy that Carson was being brutal about something. A few moments later they departed together. Tommy soon followed.

TOMMY did not see Mary again the next week. Night after night he ran the engine while Dolan huddled on the fireman's seatbox, head buried in hands. Later on, Tommy hoped to

get Dolan to the point of running the engine himself. Somehow, he felt that once Dolan could conquer his fear, the end would be in sight. It came as a surprise to find Dolan offering to run the engine this night.

"I'll run her, lad," he told Tommy. "You've done enough. No more will you have to be worried by an old man like me. Some day I'll make it up to you for all the trouble I've been."

"You've never been any trouble," Tommy denied.

"Spoken like my own son," said Dolan. "Once I had hopes you might be, lad."

"I'll always love her, Tim," Tommy replied. "Always."

"You would," said Dolan, an odd look on his face. "You're that kind. It takes the test of battle to tell true loves from false ones. We've won our battle, lad. Already have we put the enemy to flight."

"Of course," Tommy agreed. "And if you will run the engine—"

"Oh, I'll run the engine!" Dolan laughed loudly. "Not only tonight, but for all the nights to come. Our winter is over, lad. Gone is the summertime snow. There is music in my heart. Soon there will be a song on your lips and a smile in your eyes."

Tommy turned away. Something akin to a smile was on Dolan's face, and that smile brought dismay to Tommy. No need to tell him what had happened. Dolan had broken under the strain of his worries. This was the beginning of the end. No more would he be able to help the old Daredevil. No more would he be able to shield him, once the truth was known.

Swallowing the lump in his throat, Tommy got down to put in a fire. Back on the seatbox he looked out upon a night made for lovers. High in the sky rode a silvery moon, the same kind of a moon that had been the night he and Mary parted forever. Soon she would be Carson's wife.

He stole an anxious glance at Dolan as they neared the entrance of the Pass. What he saw made him look again to make sure he was not dreaming. Dolan was there, sitting at the throttle as easily as he might a rocking chair at home. The Daredevil's left hand held the throttle and his eyes were glued to the rails beyond. Atop his graying head the black cap perched rakishly over one ear, while the corncob pipe was upside down as in the days of old.

Nor was there any change in the engineer when they swept into the Pass at a sixty mile clip. On the tiny grade the old master of them all gently dropped the Johnson bar a notch on the quadrant and nodded in a satisfied way as the iron steed barked its willingness.

"But it's too late now," Tommy thought sadly. "Too late."

On raced the engine. Still Dolan held the pace. Tommy had just finished putting in a fire when he saw Dolan half rise to his feet and thrust his head out the window to stare down the track ahead. Too well Tommy knew what that meant. One jump and he was at Dolan's side, blocking the hand that reached for the brakes.

"Not tonight, Tim," Tommy said gently. "Remember you promised—"

"Don't, lad!" Dolan yelled. "Look ahead. There in the Pass. Stop!"

DOLAN was fighting frantically now for the control of the brake valve—fighting as only an insane man could fight. Doggedly Tommy hung on, unheeding Dolan's pleas to look

ahead. Some will beyond his own made Tommy glance through the little window in the front of the cab. What he saw there made his hands drop away. He stared.

And well he might stare. Snow blocked the Pass beyond. Pile after pile of it, rising and falling in the bright moonlight as if it were alive. A tiny shock, barely felt. Tommy heard the hiss of escaping air, saw Dolan put the sanders to work in desperate effort to stop the train before they struck. Too late. Already the first flurry of snow was sifting into the cab—snow as soft as silk and warm as thistledown. Then m o r e snow. Tommy never saw the huge white ball that hurtled in the window and sent him crashing against the coal gates, there to sink into the deep black pit beyond.

It was three days later that Tommy climbed out of the pit to find himself in the hospital. Three cracked ribs, a broken shoulder and slight concussion of the brain were his to show for the accident. His first thought was for Dolan.

"Walking about as fine as can be," the nurse told him. "Only a broken arm. Now, you be quiet so you can get well. Maybe they'll let you see him tomorrow. That will please him. He's been worried sick over you. So has somebody else I know of. Now, lie down and go back to sleep."

Tommy obeyed. After all nothing mattered now. But he did wonder who else could be worried about him. Mrs. Murphy probably. She was the only other he could think of. It was two days later before he knew. That was when they permitted Dolan to see him. Dolan, with arm in a sling and contrition in his blue eyes.

"It's happy I am to see you coming around," Dolan said brokenly. "I'd never have rested easy had you died. Can you forgive an old man for his deceiving you so?"

"Deceiving?" Tommy repeated. "I don't understand, Tim. What do you mean?"

"I mean there never was any summertime snow," Dolan confessed. "It was all make believe for Carson's benefit. His engagement to Mary almost broke my heart. I knew she did not love him, selfish and conceited that he was. His kind was not for her. But I dared not cross her. She has a will of her own as you well know."

"Yes, I know," Tommy admitted, eyes gloomy.

"Maybe I was a little crazy," Dolan went on. "Most Irishmen are when love goes deep. When the bank failed and the houses burned, right on the heels of the accident in the Pass and the gypsy's curse, I had an idea. I would pretend that I had lost all my money and that the houses were not insured. I was pretty sure that Carson would not be so eager to marry Mary then. His kind loves money."

"And you were wrong," Tommy sighed. "He still kept on."

"He did," Dolan admitted. "Maybe the scamp did love her in his own way. But I could see he weakened a little. Then I grew desperate. The gypsy's curse came back to me. Of course, that was out. The old hag took back her words when the claim department paid her five hundred dollars. But nobody knew it but me and the claim department. I decided to pretend I was losing my mind and give Carson something to think about in earnest. If he could stand the disgrace of being related to a crazy father-in-law with the prospects of having to support him and his family for the rest

of his life, then I would have to admit I was beaten."

"And you risked your job and Mary's happiness to do it?" Tommy asked. "Don't you think you took a big chance, Tim?"

"Men have risked their jobs for a lot less," Dolan retorted. "Lives, too. But Mary's happiness was not to be found with Carson. She never loved him. Her heart was with a certain young man who ran away and left her. She thought her engagement to Carson would bring him back. When it did not she lost heart. Then you came back."

"I thought you needed me, Tim."

"I did," Dolan told him. "So did Mary. The night at the social taught her that. It was then and there she gave Carson the mitten and his engagement ring. I knew it the night I promised to run the engine myself. Perhaps I should have told you. But somehow I was afraid you would not take it kindly and might run out on me as you did on Mary."

"And lost my chance for happiness," Tommy sighed. "I was silly."

"You were wise in a way," Dolan contradicted. "I was the one who was wrong in saying no general ever won a battle by running away. Would you like to see Mary, lad? She has all but lived at this hospital since you were hurt."

Tommy could only stare at this piece of news. Mary had come to see him? And he had thought it was Mrs. Murphy. That meant she must love him. He started to tell Dolan to have her in, only to see Dolan at the door and calling to someone in the hall.

"The young idiot is sane once more, Mary. Come in and get him."

"AND that's the story of Dolan's summertime snow," Knowitall finished. "They were married in June. Dolan gave them a home as a wedding present. He had little money in the bank when it failed, and the houses were insured. A smart man was Dolan. He was not given to gambling except when the odds were all in his favor."

"Seems to be he did in risking his job like he did," grunted the old boomer.

"With a brother-in-law holding down the chair of general manager?" dryly from Knowitall. "Not to mention a cousin who was superintendent of motive power. Dolan was not one given to boasting. I doubt that any of the men knew it at the time. I did not for years. Neither did Brannigan until after his marriage."

"Just one thing more," said the old boomer. "Dolan admitted he faked being crazy and that the gypsy took back her curse and all that, but how about the snow in the Pass?"

"There was no snow," smiled Knowitall. "It was sheep. Three thousand head the owner was taking to the hills for summer grazing. Dolan knew what they were. He was looking out of the cab window, you know. Tommy was looking through the little window in front of the cab and his vision was blurred. Then, too, he had his mind on seeing snow. He tumbled to what was wrong just about the time they struck the first stragglers in advance of the huge flock. You know the rest."

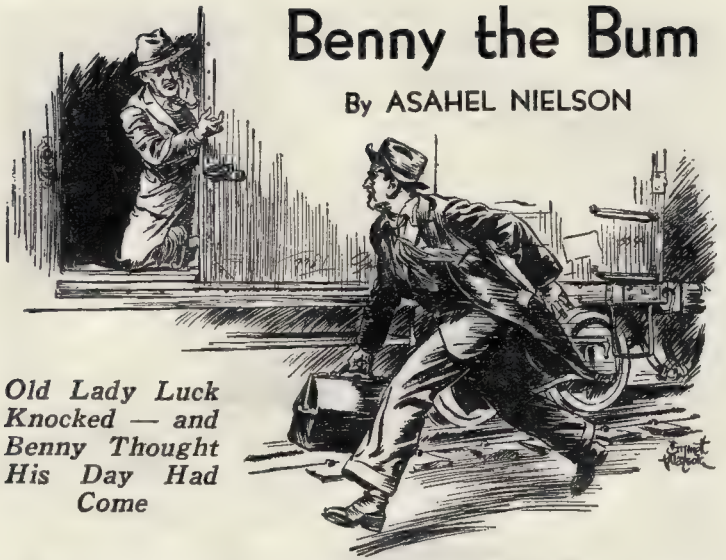
Famous
ENGINEERS
By Stoonie Allen
BORN AT TURTLE CREEK, PA., ON JAN. 14, 1860. FIRED FIRST ENGINE WHEN 19; PROMOTED TO ENGINEER IN 1882, TO PASSENGER ENGINEER 5 YEARS LATER.
AS THE RESULT OF A 78-MINUTE RUN FROM PHILADELPHIA TO JERSEY CITY (90 MILES) IN 1902, HE WAS PICKED BY PRR PRESIDENT CASSATT TO INAUGURATE THE "PENNSYLVANIA SPECIAL" THAT YEAR. HE HANDLED IT UNTIL IT WAS ESTABLISHED, WHEN HE GAVE IT UP TO MEN OF MORE SENIORITY.
MARTIN H. "JIMMY" LEE
PRR
PENNSY SPEED KING
IN MAY, 1915, ON THE NEXT TO THE LAST RUN BEFORE HE WAS TAKEN SICK, HE RAN NO. 779 AND 9 CARS FROM WASHINGTON TO LONDON PARK TOWER, 36 MILES IN 25 MINUTES. HE DIED IN JULY, 1915.
DURING HIS CAREER HE FIRED AND RAN MANY EXPERIMENTAL AND "FREAK" ENGINES, AMONG THEM THE "COVENTRY No. 60" "STRONG", "SHAW", "FONTAINE", ETC.

*Thanks to Charles B. Chaney, Brooklyn, N. Y., and Eric Clough, Dublin, Ireland*

*Next Month*—DAVID J. FANT (Southern Railway)

# Benny the Bum

By ASAHEL NIELSON



*Old Lady Luck Knocked — and Benny Thought His Day Had Come*

BENNY sat in a box car raking a dirty thumb nail through a week-old beard. He had done nothing else for an hour, because there was nothing else to do. Benny was a mechanical engineer, in name if in nothing else. He had been graduated in the spring of 1931, but no one seemed to want an engineer of any kind. In fact, no one seemed to want to hire anyone to do anything.

Of course, Benny could probably get a job with the CWA or CCC, but after all, that was almost like charity; and besides, long before there was any CWA or CCC Benny had become a box car bum. Now it was hard to change.

Benny was startled from his contemplation by three shots far down the track. Shots didn't particularly interest Benny. It was probably a cop after a crook. The number of crooks seemed to be increasing every day. However, since Benny had nothing else to do, he leisurely got up and walked to the door.

Yes, it was undoubtedly a cop after a crook of some sort. There was a short, heavy-set man running down the path between the tracks. He seemed to be about the same build as Benny. He wore a long black coat and carried a black traveling bag. Probably robbed a bank or store and the loot was in it.

Not far behind him was what Benny took to be a detective. He had longer legs, and it was only a matter of time until he overhauled the crook, who seemed to be almost exhausted.

As he watched the race, Benny suddenly got an idea. He would high-jack the loot and make a clean getaway, right under the nose of the cop. Why not? He was tired of being a bum. With a little stake, he could go to another locality and become a respectable

man. It would be no trick at all for him to elude the cop in this large yard full of cars. There was no policeman on earth who could follow Benny in a railroad yard. And there was a freight train due through in about five minutes.

But that would be the least of his worries. He could not allow the crook to be caught, because it would be evident that he had been high-jacked. Then there would be a search for Benny. This game would be risky, to say the least. However, Benny determined to see it through.

"O.K., buddy, right in here," whispered Benny, as the crook was about to pass by the car. The short, stubby man was surprised at this unexpected assistance, but he was almost out of breath and was willing to do almost anything. Puffing and grunting, he laboriously pulled himself into the car.

"All right, give me your coat and bag and I'll throw him off your trail. Then I'll meet you back here in about ten minutes. All you have to do is to lay low," assured Benny, in a soft, hurried whisper. He was prepared to use violence to obtain the coat and bag if necessary. With the man in that half exhausted condition it would not have taken much effort to throttle him.

But the fellow was willing to do just as Benny said. It was only a matter of seconds until Benny, wearing the coat and carrying the bag, appeared on top of the car. The officer naturally supposed he was the man, because Benny and the man were about the same build.

THE worst was over now. Benny had the loot and it was only necessary to keep the officer following him and still stay out of gun range. It would not do to completely lose the cop, who might stumble onto the real crook. All that was necessary was to allow the dick to see him catch the fast freight, which would be through soon. At the same time the cop would have to fail to catch it. Then Benny could lose himself before the train reached the next station, and no one would ever think of looking for him. The train would be gaining speed for the long climb just beyond town, so Benny was confident.

The light on the approaching engine train appeared far down the track. Benny led the cop over to the side of the yards farthest from the main track, where the train would pass. Now it was simply a matter of timing. He must not allow the officer to realize that he intended to catch the rattler until it was too late for him to catch it. Already the engine was passing, but still Benny loitered on the far side of the yards. The speck of green light that was the caboose came nearer.

Finally Benny made a dash across the yards. Idle cars, waiting on the side track, seemed to help rather than hinder his progress. One leap would place him on the couplers and another would send him to the ground on the other side. The cop was left far in the rear, laboriously climbing over and under.

Benny scrambled aboard on the third car from the rear. He was certain the cop saw him catch it. Yes, there was the galoot, running down the middle of the track behind the cabose, waving his arms. Benny sat down on the running board with the bag beside him. From now on he could take life easy.

The train began to slow down. What was the matter? Benny's eyes strained toward the head end. Apparently someone had left a switch open. The train would have to stop. No, a switchman was running to close it. The train was going slower; the cop was gaining. Would he catch the train before the

switch was closed? Then the switchman closed the switch. The train gained speed, but it was too late. The officer made an extra effort and gained the rear end of the caboose.

Benny knew it would only be a moment until the cop explained to the trainmen, and that they would be on top of the train after him. He had to think fast. There must be some way out. Yes, there was still hope. He could let them think they killed him. It would not be simple, or safe, but the risk must be taken. He couldn't allow himself to be caught now. Benny started running toward the engine. He had run over several cars, when a glance over his shoulder showed him the cop and brakeman just climbing on top of the caboose. Again it was a matter of timing; he must be just at the end of a car at the first shot.

THE timing was perfect. Benny *was* at the end of a car when a shot rang out. The bullet certainly went wild, because Benny didn't even hear it whiz past him. He had hoped that the first shot would come closer, but he had to take things as they came. He allowed his legs to crumple under him. He fell face down with his arms hanging over the end of the running board. His hands groped and found the running board braces. One hand still held the precious bag.

They both closed around the iron braces. Then he rolled off the end of the car. For a moment he hung by his hands. He dropped to the swaying couplers, where he almost lost his balance. Here his long training as a bum stood him in good stead. Anyone not accustomed to moving freight trains would have fallen under the wheels, but Benny, with an almost super-human effort, regained his balance.

On one side the mountain towered into the sky. Darkness had fallen and the canyon on the other side was nothing but a splotch of blackness. Benny only paused a brief fraction of a second on the couplers. It had to appear, to the men on the train, that he fell. He jumped clear of the cars and rolled down the steep side of the canyon.

On the train the detective futilely emptied his gun at the rolling figure.

The next morning found Benny far from the spot where he had fallen from the train. He had found the bag to contain bills, lots of United States currency, mostly small bills that were new and crisp, the kind of money one dreams of. It was small enough to use without suspicion.

Benny chuckled. He had carefully hidden the bag and coat and distributed the bills in his ragged clothing. Now he was sitting on a pile of ties, waiting for a freight train that would take him far from his old stamping ground. Since he had come over a hundred miles on one train during the night, he felt fairly safe from pursuit.

A passenger train thundered by. A man sitting on the rear platform tossed Benny a newspaper. Benny strolled over and picked it up. It would not be long until *he* would be sitting on rear platforms, tossing old papers to bums along the track. As Benny opened the paper a headline hit him in the face:

**Detective Kills Counterfeiter On Freight Train**

He feverishly began digging in his dirty clothing for the bills. . . . Yes, they were counterfeit. . . .

Benny sat in a box car raking a dirty thumb nail through a week-old beard. He had done nothing else for an hour, because there was nothing else for him to do.

# Railroads That Vanished

ONE would expect railroads to stay put, but such is not always the case. Nearly ten years ago, officials of the French War Office who were sent to overhaul a railroad that had been constructed during the World War along the valley of Puisieux, near Albert, could find no trace of it. They were puzzled. Finally they learned from peasants in the vicinity that "foreigners" had come into the neighborhood some time before and removed all the rails, ties and equipment, down to the last spike! Where that particular railroad was re-laid—if indeed it was re-laid—is a mystery that may never be solved.

Another instance was the disappearance, in 1914, of a French branch line between Joigny and Ville L'Archeveque, upon which the Department of Yonne had been paying subsidy. The lines just simply vanished: "folded their tents like the Arabs and as silently stole away." Who took them, and why, are riddles which baffle the shrewdest detectives in France. Central Europe reported a similar case in 1919. The cog railway which ascended a steep mountain side at Kahlenburg was closed during the War for lack of tourists. After the War, when officials decided to reopen it, they found only one big broken cog of the funicular. All the rest of the road had disappeared!

Even in America a man stole a railroad, "lock, stock and barrel," and got away with it. Back in 1896 the St. Louis & Galveston Coal Mining Co. began operations at Hickory Hill near Lehigh, Oklahoma. Their property was located four miles from the M-K-T, and in order to get their output to market it was necessary for them to build a railroad from Hickory Hill to Midway, where it connected with the Katy. Midway is about two miles south of Lehigh.

The company bought a dinky four-wheeled locomotive which they named "Old Hickory," and for a while business was humming. But in 1902, on account of the excessive cost of mining Hickory Hill coal, the company suspended operation there. In 1906 a quiet fellow came to Lehigh with a letter apparently from the mining company, stating he had purchased the railroad and had the authority to remove it. After ordering parts for the engine and getting her in running order, the stranger proceeded to take up the track and sell it to a ballast company.

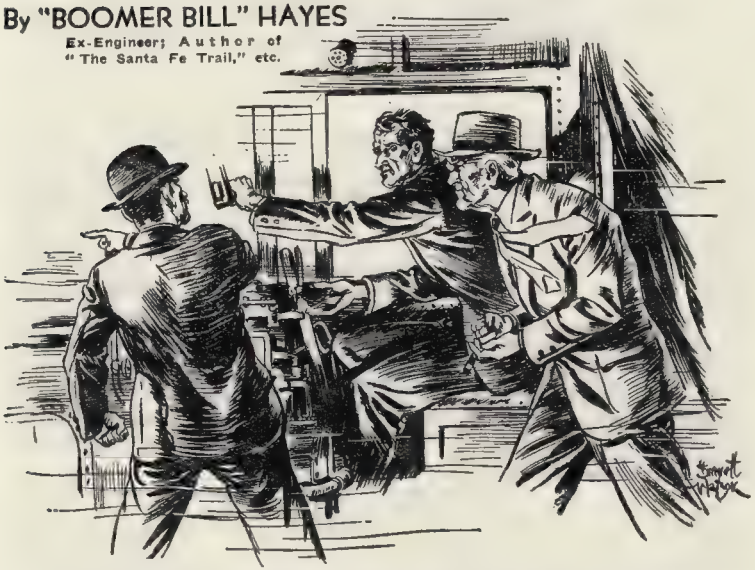
Later an auditor for the St. L. & G. arrived in Lehigh to check up on their property. The caved-in slope of the mine and the roadbed where the railroad had been were about all the assets he could find. The letter authorizing the man to remove the road proved to be a forgery. A settlement is said to have been made by the ballast company at Mill Creek to the coal company for the theft. In time the mysterious stranger was captured, but broke jail and was never brought to trial.

The ballast company later went out of business. "Old Hickory" rusted until 1918, when she and the railroad were sold for junk. But it was found that back taxes were more than the property was worth, so the sale was cancelled. Several years passed. The Frisco got tired of having "Old Hickory" take up space on their sidetrack, to which she had been moved when the sale was attempted. The old abandoned engine was picked up and set out on the Frisco right-of-way. She reposes there today in a jungle of underbrush, reminiscent of "A North Woods Tragedy" (Jan. '35) and "A Trip That Cost $2,000,000" (Dec., '34). In 1914 the Oklahoma Mining & Stripping Co. re-laid the Hickory Hill track, and operated a strip coal pit at that place for years.

Old-timers say while "Old Hickory" was sitting out on the track near Lehigh, kids from miles around would gather there and play railroad. There was genuine grief when the engine steamed away, and rejoicing when the man who stole her was captured.—E. N. Martel.

# The Ballast Scorcher

By "BOOMER BILL" HAYES
Ex-Engineer; Author of "The Santa Fe Trail," etc.



***There Had Always Been Exceptions to Rules, but Trainmaster Shively Hadn't Believed It Before***

GIL BRACKEN came out of the long Saluda Cut with a stuttering burst of exhaust in his stack and his smoke plume flattening down over his cab roof. The thunder of his flight changed as the high rock walls fell behind him and he straightened on the mesa.

He hung loosely in the right-hand cab window of the 2826, sighted along the boiler, saw the white "extra" flag on his engine snapping in the breeze. His ears were attuned to the symphony of his running, the crash of tires on rail joints, the blubbering steam against the pops. The rock ballast was a gray blur hurling itself at his pilot, disappearing beneath and behind him. He notched his lever higher, cracked his throttle wider, turned to watch his fifty cars trail true behind him.

He was a young man with a clean, strong face and a lazy smile. He let his smile broaden as his fireman jerked at his sleeve.

"You got better sense, Gil," the fireman was saying.

Gil looked at him with frank eyes, elevated one brow. "Better sense?"

"You know what it says in the book," the fireman cautioned. "You're

just about burnin' the ties now. If ever . . ."

Gil Bracken knew his speed. He also knew what it said there on the inside cover of the division timetable. Just a paragraph under the heading of "Speed Restrictions," and said freight trains should not exceed a speed of forty miles an hour. It also said freight trains carrying wrecker equipment should not exceed a speed of twenty-five miles.

Gil held his watch in his big hand. The watch said 1.16 P.M. The pilot was closing in on the whistle post which called for a crossing blast. Gil put his watch back. He knew he was violating that time card restriction, but he had a reason. If he didn't hustle he'd show up at the terminal on overtime, and there was a general order under the Old Man's signature that overtime must be cut out. There was no excuse for overtime other than engine failure on the road, wrecks or other acts often erroneously attributed to the Deity. Gil Bracken had been in no wreck, nor had his engine quit on the job.

Gil Bracken was behind with his work because a well-meaning dispatcher with an over-burdened brain had looked at his train sheet wrong, had issued a flock of orders, and had caused a convention of freight trains at a wayside town with inadequate siding facilities.

The net result had been a lot of dumb delay that would be tough to explain. The only way to avoid explanation would be to make up a little of the time. The only way to make up the time was to run for it. And when it came to running for it, Gil Bracken was the man who could.

Perhaps if Gil hadn't been so handy at speedy running, he never would have got into trouble. Or perhaps if Gil hadn't bowed and smiled one summer evening to a lady by the name of Hope, his speed would never have been held against him.

In any event, Gil's record, in the superintendent's file, wasn't exactly the kind a young man contemplating matrimony should have. It was full of black marks. It was studded with notations of days without pay, served as penalty for this or that offense. Most of the offenses read, "Excessive speed between so and so."

Each time the complaining officer was Trainmaster Shively. Shively also was a young gentleman with a frosty mien and a great disappointment in life. He always felt he had seen Hope Storey first. Thus, when Engineman Gilbert Bracken had come along and turned the lady's fancy, he blamed it on Bracken.

GIL jerked his whistle cord at the post. The engine slammed past it, rocking with the give of the rails. Gil mentally calculated what it would take in the way of running to get in under the wire. He knew he could take no more chances with his record. Shively only needed one more whack at him. If he made overtime on this trip it would be too bad.

Of course, he might try to blame the dispatcher. He might *try*. Yeh. Just try to hang anything on the dispatcher. He was the one guy who has first chance to cover himself, and no dispatcher ever intends to be caught napping. Why right now, Gil reasoned, that train sheet would be all fixed up.

Gil looked back along the wheel line. The extra rolled with the wind and like the wind. Across a gentle curve he saw the caboose whipping. His lazy smile widened. He thought of Hope and took a deep breath. That's

the way she affected him. Every time he saw her there was always that breathless feeling.

He would see her tonight. June was a week away. The first week of that month she would lay aside her white uniform of nurse in the company hospital at the terminal and go over to the minister's house with him. Then, in a few minutes, they would come out together and life would be wonderfully new and different.

He half closed his eyes as he turned from the caboose. He let his gaze play over the hills. He sniffed the fragrance of the full spring. He could even express kindliness and love toward so low a person as Shively. He even told himself Shively was a good guy even if he did try to make mountains out of mole hills. Yes, sir, Shively meant well.

It was unfortunate that Gil, at the moment, failed to look about him thoroughly. Had he done so he might have seen a gentleman sitting on the side of a hill almost on a line with what whistle post Gil had just passed. Looking closer, he might have recognized Shively and seen him writing something in a book. He also would have lost any feeling of good will.

THE Old Man looked like his dyspepsia, or whatever it was that ailed him, might be several degrees worse. He kept his big hands folded over the rise and fall of his watch chain. He didn't move. He sat listening intently.

Trainmaster Shively wore a self-satisfied smile. He was a slim man. He sat at the Old Man's right. Next to Shively was Mr. Horn, the assistant trainmaster, who seemed, in many respects, a carbon copy of his immediate superior. Horn was a little fuller in build. He had been a trainmaster's clerk before his elevation and therefore was familiar with the Shively school of supervising officers.

This was the picture Engineman Gil Bracken faced at ten o'clock on the morning following his flight out of the long Saluda Cut. He came in from the Old Man's outer room with an expectant smile on his features. Speaking cordially to those present, he met their chill glances and stopped where he was. The call boy had summoned him at ten, but he had no inkling as to what it was all about.

Shively evidently didn't want to keep him in ignorance very long. The trainmaster didn't even motion him to a chair, but merely said:

"Well, Bracken, it's too bad."

Gil immediately drew himself up. His lazy smile vanished. He looked from one to the other of those hostile faces quickly.

"What's too bad?" Gil asked. He kept his voice quiet.

"Same old charge," the Old Man muttered. "It looks like you'd never get some sense."

"Same old—" Gil began as he locked glances with Shively.

"From Saluda Cut to Washpan," Shively said thinly. "You know what time you passed the whistle post out of Saluda Cut?"

Gil remembered having looked at his watch. The cords in his throat tightened.

"One fifteen or sixteen," he said. "Something like that."

"Let's see your watch," Shively snapped.

Gil held out his watch. Shively looked at it, compared it with his. The superintendent and the assistant trainmaster studied the two dials.

"Three seconds different," Shively

said. "I clocked you by that whistle post at sixteen. Compare your watch with Mr. Horn's."

Horn smirked. He held his watch out. The comparison showed a difference of eight seconds.

"I suppose he clocked me," Gil said savagely, but still quiet, "at—"

"At Washpan switch," Shively cut in. "Eight miles. He clocked you there at 1.23. Seven minutes. A little better than sixty-eight miles an hour with a freight train."

Gil swallowed a hot retort. He said evenly: "You laid for me. You got me. So what?" He knew it would do no good to put up a defense. He knew Shively had always had it in for him, but he never expected anything like this.

"I'm sorry," Shively said.

"Like hell," Gil cut in. He couldn't help it.

"Remember your place," Mr. Horn simpered. He glared at Gil stonily. "You know why we have rules. You've been warned enough."

The Old Man raised his eyes from the official record. His face was impassive, his eyes opaque. He said, "From the looks of this record, Bracken, and from your continued defiance of restrictions—well, you don't leave me much choice."

The Old Man wrote a word across the face of the record in bold script. He tossed it over to Gil with an air of finality.

Gil Bracken looked at the word; red spots showed on his cheeks. His impulse was to wipe the smirk from Horn's face with good hard knuckles, to crack the ice on Shively's pan with a blow from the knees. Instead, he thought of Hope and felt suddenly weak at his stomach. He took his hat and walked out slowly.

HOPE held her hands clasped tightly. Her breast fluttered under the white starch of her uniform with her quick breathing. Her eyes flamed for a moment.

"Gil," she said, "they can't do this to you. They simply can't."

"They did," Gil said.

"But the Brotherhood," Hope persisted. "The committee—"

"I saw the committee," Gil said. "The griever* don't hold out much hope. You see, after all's said an' done, they got me. Kinda dirty, maybe, the way they went after it."

"Yes," Hope admitted. "But surely—perhaps if I talked to Mark Shively I could make him see—"

"That'd tickle him half to death," Gil broke in. "That's just what he'd like to have you do. Come to him on your knees. No, that's out. The griever told me he'd do everything he could. He told me they were trying their best to nail Shively to the cross. You know, setting an automatic block right smack in a man's face out at some lonely place. Then hiding there in the weeds to see if the man will stop."

"But there must be something," she insisted.

"There's waiting, Hope," Gil said quietly. "We've got to wait, that's sure."

"Wait." She laid her hand in his. They looked at each other a long time.

June came. Gil Bracken, ex-engineer, and Hope Storey, nurse, did not go through the vine-covered gate at the parsonage to come out in a different life. They met, instead, and found it hard to speak in their waiting.

One evening Gil said, "I talked to the griever again today, Hope. He's taking my case up with the general

*Brotherhood spokesman.

manager at the meeting next Tuesday. It may be that he can make the official listen to me. That's what he's hoping for. He's taking up my case along with Charlie Spratt's."

"Charlie Spratt?" Hope looked at him closely. "What happened to Charlie?"

"They got him last week," Gil explained. "Threw a red board in his face just as he came out of Saluda Cut on that curve there. He saw the board, and the light was green. He turned to say something to his fireman, then he looked at the steam gage. Finally when he looked ahead again he was past the board. He didn't know it had been thrown. Shively and Horn were there and they threw the signal by electric contact. Then they testified at the investigation that Charlie had seen it in plenty of time to stop but had ignored it. There was two against one. Charlie's on the anxious bench along with me."

"He's got a wife and three kids," Hope reminded him.

"He's fifty-two years old," Gil added bitterly.

Hope rose and walked to the end of the porch and back. Her silhouette in the shadows made her seem taller. Gil stood beside her and they leaned on the railing.

Gil looked at his watch. It was 10.15. He picked up his hat, held it for a long moment looking at it. Then he took Hope's hand and held that. They were standing thus when the wrecker whistle blew.

THEN the engine caller came yelling breathlessly through the dark:

"Bracken! Gil Bracken! You up there, Gil?"

In the shadow on the porch, Gil stood by Hope Storey.

"I'm here," Gil called.

The boy came running.

"You. They want you. Now."

Gil took the youth's arm. "Easy, kid. What's—"

"Don't stop for questions. They said to get Bracken. They ain't got any engineers ready, an' there's an extra in the ditch an' Pink Shively's pinned under it. Some of the crew's bad hurt an'—"

Hope was at his side as Gil loped up the quiet street. The wrecker whistle rose and fell, its wail an eerie thing in the fastness of the night. Its tortured voice sent chills up and down the spine. And those who live in the railroad world dread the sound because they never know when its blow is a message of death and destruction to them.

They came to the depot platform and they saw the people milling about. There would be wives and mothers making anxious queries. Who piled up? How many hurt? Anybody killed?

Hope panted: "There's Doctor Walling. I'll go with him."

She left hurriedly, fixing her cap on the great wave of her straw-colored hair. She ran for the coach which a yard engine was hooking on behind the equipment, weaving through the men hurrying to man the big hook.

Assistant Trainmaster Horn came out from the train shed with a lantern in his hand. His face was grave and his simpering had disappeared.

"Ready, Bracken?" He snapped the question, not facing the engineer.

"I'm reinstated?" Gil demanded.

"Get on," Horn said. He still wouldn't look at Gil.

The Old Man plowed up, puffing like a hog on a relentless grade. "Where's the skipper?" he asked.

"How about me?" Gil inquired. "I'm supposed to be discharged."

The Old Man growled: "Find the conductor, Horn. We can't stand here all night."

Running out of the depot, waving his arms, the operator cried: "Oh, Mr. Horn! Mr. Horn! The conductor of the wrecker just called in from the siding at Washpan. The wreckage is on fire. He's yellin' for help."

*Wreckage on fire!* Gil heard and turned to the engine. He climbed up the gangway steps. The old familiar smells smote his nostrils. *Wreckage on fire!* He knew what that could mean.

He got aboard and found it was his old love, the 2826. Everything looked the same as he plopped down on the seat cushion. Even his old fireman was on the job. His fireman came over.

"Who piled up?" Gil asked. He had to shout to make himself heard above the bedlam outside.

"Joe Varick," the fireman answered, naming an old engineer. "On the curve just east of the long Saluda Cut."

Gil Bracken's eyes flamed. "Test?" he asked.

"Test," the fireman answered. "Shively threw the automatic block in Joe's face. He big-holed her for an emergency stop. She broke in two just behind the engine an' took for the cornfield. The head brakeman was ridin' on top about ten cars behind—Tommy Naylor—him an' a coupla tramps an' Shively are all under the wreckage, from what I heard."

Horn climbed to the deck with the Old Man, and Horn yelled, "Let's go!"

Gil looked back along the platform. He saw the skipper's lantern toss the highball. He answered it with his whistle. He opened the throttle, fed sand to the tires. The wrecker moved. The Old Man came over to stand behind him.

GIL watched the red and green and yellow of the yard lamps, the ruby and emerald of the old familiar switches. He kept his eye on them and threaded his way over the tracks. Then he came to the signal bridge at the tower. He eased under it, opened his throttle a little wider and followed his headlight into the darkness.

In his mind's eye he saw, boldly printed, the letters in that paragraph on the inside cover of the division time card. ". . . freight trains carrying wrecker equipment shall not exceed a speed of twenty-five miles an hour . . ."

The Old Man fidgeted about at his shoulder, looked out at the night, then turned to the gages and other gadgets. He clasped and unclasped his hands.

Horn looked out, frowned, and confronted the Old Man. They both faced Gil.

The old man said: "That wreck's a-burning."

"Poor Shively!" Horn added.

Finally the Old Man yelled: "Good God, Bracken! Can't you step on it?"

"The book says twenty-five."

Gil turned to poke his head through the window. His very impulse was to shout out against restrictions. Forty-eight miles ahead of him, on the Saluda curve, four men were facing death. His fingers clenched around the throttle.

"There's exceptions, Bracken. Take the bridle off," the Old Man bawled.

Gil brought his head in. "There's always been exceptions," he retorted. "You'd never believe it before."

"As God's my witness," the Old Man growled.

Gil faced Horn. "You heard that?"

"Scorch the ballast," Horn agreed. He kept his eyes averted.

Gil Bracken was the kind of engineer to whom speed came natural. Perfect master of his engine at every point, he could let it out at will. He knew what each curve and tangent would stand, and adjusted his pace accordingly. He adjusted it without conscious effort, so that when his drivers were turning over in a sickening blur there still was no sense of anything out of the ordinary.

His throttle came back precisely to a point he knew to be best for the most efficient working. His lever came up on the quadrant, and he could tell by the throb of power in the feel of it just where it should rest. He paid little attention to the terrain. He knew the road by some hidden sixth sense, and he knew just how to run.

His whistle was wide open as he banged down on the station at Ryeland. Fifty cars in storage on a track beside the main rattled and crashed against Gil's ear drums as he banged by them. He touched his air just slightly for the curve beyond the water tower, looked back to see the grim outline of the big hook following in outline of the big hook following.

The Old Man had his watch in his hand on the swing through the gap at Birdsong. Gil stole a look at him and thought the Old Man's cheeks were pale. Horn stood braced grimly in the center of the deck, thinking his own thoughts with a downward droop to the corners of his lips.

AT 11.44 they whooped past Washpan switch and the sky in the west was an angry, glowering red. The Old Man poked Gil in the ribs and pointed. He yelled at Horn. The assistant trainmaster hung over the gangway.

Gil leaned far out his window. He watched the glow come nearer. Gone from his mind was all sense of animosity, all personal feelings. Uppermost was the fact that four men faced death—four human beings pinned somewhere under the pile of cars. A railroader worthy of the name forgets his grievances and his grudges in situations like this.

They stopped at the Washpan west switch to make the necessary change in their train. They had to get the big hook ahead of the engine. That was the first thing. They would take the rest of the cars behind them.

Joe Varick's engine was in the Washpan spur, waiting to help. Gil didn't see the other engineer as the necessary maneuvers were made. His mind was intent only on the job at hand.

Horn and the Old Man had left him to talk to the wrecked train's conductor, who had brought his engine and the two head cars remaining on the tracks down to Washpan for help.

Everything was done by the whirl of lanterns. The moves were made with amazing swiftness. Finally, after five minutes' switching, the big hook was ahead of Gil's pilot and his skipper's lamp was signaling. Gil whistled out and the conductor immediately came aboard.

He looked for Horn and the Old Man. He voiced a brief question as he opened his throttle.

"They're back with the doctor an' the nurse in the hospital car," the skipper said. "Joe's fireman got hurt pretty bad when Joe made that stop. Banged against the tool shelf above the fire door. Caught his back. Joe's

skipper's got a broken arm, too, an' his flagman's back of the wreck."

Gil had to keep his speed down because the crane was in front. To derail that would spell the end. The minutes seemed hours. The night was sultry, and the breeze his movement stirred up was hot. Lightning flashed in the far sky.

Presently they were closing in, and the air was on the wheels. Gil was leaning far out, his eyes wide. It was incredible that an emergency braking could wreak such havoc. What had been a fleet-wheeled merchandise hotshot was now a tangled pile. Not a dozen of the fifty-odd cars in the train had been left standing.

A brakeman cut Gil and the big hook loose from the rest of the train, and Gil shoved up to the burning heap. He saw the crew of the big hook shield eyes against heat and flame, and felt it in his nostrils. Sparks were spiraling up in thick smoke that told him, somewhere in the conflagration, an oil car had added to the hazard.

Gil could see the wrecking boss making motions and the brakeman gave him signals from the platform of the crane. The big crane swung out; the chains dropped over. The wrecker slashed at the pile. Sparks skyrocketed as a burning car was dragged clear and sent rolling down an embankment.

LITTLE by little the wrecker ate into the mess. Minute by minute Gil tensed at his throttle. Finally he turned to his fireman.

"You take it," he yelled.

The fireman took the engine. Gil dropped down into the glaring light of the fire and ran alongside the wreckage.

Men shouted. Gil saw one go over. Two others carried him out. Gil found Horn and the Old Man. They were a little beyond the main conflagration, standing down close to a place where three box cars were pyramided. Gil heard the Old Man yelling:

"We'll be gettin' to you. Hold on."

Gil ran up. "Shively?" he asked.

"Shively," the Old Man said. "There's somebody else under there with him. Maybe the brakeman. Maybe a tramp. We don't know."

"The heat! It's getting worse!" Shively cried. "Can't you do something?"

Gil could see his wild eyes. Shively was on his back, and his head and shoulders were out from the pile, but his chest and legs were pinned down hopelessly. His eyes were terror-stricken. Flame licked on the end of the car farthest from him.

"We're coming in," Gil shouted.

"Look!" Shively's voice was a wild shriek. He closed his eyes.

Gil looked, and he and Horn and the Old Man had barely time to jump back. The big hook, in trying to drag another car free, had slipped. In slipping, the burning car piled over on the mess under which Shively lay. The wind fanned the flame. The heat was fierce.

A cry went up from the men trying to anchor the hook and drag the chain. Then Gil saw them running back, coughing, panting, shouting.

"We can't make it," the sub-foreman yelled. "We can't get the hook onto a one of those cars."

Gil grabbed the foreman by the arm. "Get your men back," he snapped. "No use all of us getting scorched. There's one slim chance." He started running toward the engine.

"What are you doing, Gil?" Hope had come up, and she was now running after him.

"Stay back," Gil cautioned her.

"Don't be a fool," the Old Man shouted. He was beside himself.

But Gil wasn't a fool. He knew what he wanted to accomplish. He reached the gangway and yelled for the clinker hook. Then he told his fireman to wet his coat and throw it out.

"When I give a signal," he snapped to the Old Man, "make that engine walk back from the blaze. Watch my signals. And whatever you do, don't delay passing 'em."

Hands tried to restrain him as he ran back to the pyre. He wrapped the wet coat around his mouth and nostrils. He pulled his goggles over his eyes. He was thankful that the lenses were transparent and heat-proof. At least he could see without danger.

He grabbed up the steel hook on the end of the chain. It was a man's job, handling that alone. He maneuvered it around until he got his long-handled clinker hook fixed onto it. Then, flattening himself on the ground, he wormed his way laboriously up to the blaze.

His eyes were fastened onto a point near the drawbar of the key car. If he just could keep conscious and hold out until he could get that steel hook shoved up under there, and was sure it had a hold—

He forgot the shouts from the sidelines, paid no heed to the fact that the increasing roar had driven the others back. He could not see them. The heat permeated the soaked coat and began to steam his face. His overalls were smoking.

Finally, when breathing became more and more difficult, and the roar of the flames more terrific, he braced himself and maneuvered the handle of his clinker hook, which gave him about a ten-foot reach. He set the big steel hook exactly where he wanted it, took plenty of time to be sure that he was making no mistake, and then anchored the clinker hook so that it would serve as sort of support to the big hook until the wrecker could get the signal and drag the chain taut.

Now that this part of the job was done, he started backing away. The coat around his face was suffocating him because it had heated through. He began choking, and finally had to pull it away from his nostrils. He dared not breathe now because he might inhale flame. His clothes were on fire and the torture was fierce, but there was nothing he could do about it. He backed out wobbling. Then he fell over. Blackness engulfed him before he heard the answering bark of the engine's exhaust.

As he went down he was covered with a shower of sparks. The key car was yanked away from the one that pinioned the victims. And then hands rushed in to carry him away.

THE new general manager walked up and down by the window. A hill engine hissed by with her cylinder cocks open. A westbound man whistled in the distance, calling for the gate out of the garden. The helper behind him answered. The new general manager turned. He looked at Engineman Gilbert Bracken. Then his gaze rested on Nurse Hope Storey.

Gil held his right hand still because the bandages were still large over it and half up his arm. There was new skin in patches on his face.

"Mark Shively quit last week. Had an offer from some road out on the coast," the official stated as he blew his nose.

Gil raised his eyes. He rested his frank, blue gaze on the big boss.

"The Old Man," the G. M. said, "thought he'd like a transfer. He's taking a long rest first. Got a new super coming in this week."

"But it's about me—my reinstatement I asked to see you." Gil's mouth was dry as he spoke.

"Sure," the G. M. replied. "That's what I want to talk to you about, too. That's why I mentioned about Mr. Shively. He and Mr. Horn leaving us that way—why, I thought maybe—well, look! When're you two getting married?"

"When you say I go back to work," Gil replied. His eyes were hopeful.

"I tell you," the G. M. started, then found something out the window to attract his interest. He kept looking out while he talked. "You two go ahead. Here's a little sort of wedding gift. See?" He laid an envelope on the table without facing Gil and Hope. "You two go ahead. Then you take a little trip. Couple weeks. By then the bandages will all be off. I won't do anything about a trainmaster till you get back. Then you can make up your mind. A man with your nerve. Well . . ."

The G. M. watched them through the window. They went, Gil quite breathlessly, to a vine-covered gate. Hope passed through it ahead of him. They passed up the parsonage walk. The month was still June.

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# The Sunny Side of the Track

### WHAT PRICE REBATE

AZUZA, Calif., is 25 miles from Los Angeles. The Pacific Electric between those two points charges 70 cents fare or $7.50 for a monthly 60-ride ticket. A certain commuter bought one of those books, used 12 rides on it and moved to Los Angeles. Then, having no further use for the book, he called at the P. E. ticket office to get a rebate.

Now a railroad ticket is the only article of merchandise in the world in which the original owner has more authority in its disposition than the man who has bought it. The commuter stated his errand. A girl in the P. E. office said:

"When the ticket is not entirely used we charge straight local fare, 70 cents for each trip. You had 12 rides, which at 70 cents each comes to $8.40. As you have already paid $7.50, you still owe the company 90 cents."

He began to protest, but the girl cut in: "I forgot the recapture clause." After studying the stipulations and reservations printed on back of ticket, she did some figuring and said he really owed the company $4.50.

Again the commuter kicked. This time she interrupted: "Hold on a minute! You also checked baggage on it." But the man had fled to a nearby saloon, murmuring: "If that skirt had kept on, I'd have owed them a month's salary."—James Deegan, 1851 Brooks Ave., Los Angeles.

* * *

### SHE KNEW PLENTY

IRIS: "Do you know that nice-looking boomer switchman?"

Goldenrod: "Yes, well enough not to speak to."—Dana Mavity.

* * *

### A ONE-WAY TRIP

A FRIEND of mine who works for an undertaker in Chicago called up the Chicago & Alton R.R. and asked what it would cost to ship a corpse to Springfield, Ill. The reply was: "Ten dollars one way or $15.75 a round trip."

"No round trip for this party," said my friend. "He's not coming back."—J. F. Minwegen.

* * *

### THE CAR WHACK'S CHANCES

THE railroad company doctor, examining an injured car inspector, pronounced judgment as follows: "There are three wounds; one may prove fatal, but I expect he will recover from the other two."—Dana Mavity.

# By the Light of the Lantern

# Ask us what you want to know

**RAILROAD questions are answered here without charge, but these rules must be observed:**

**(1) Not more than two questions at a time. No queries about employment.**

**(2) Always enclose a self-addressed, stamped envelope, to facilitate our getting in touch with you if necessary. We will print only your initials.**

**(3) Don't be disappointed if answers do not appear at once. They are printed two months before date of issue.**

*DID the railroads' passenger revenue increase when they reduced fares last year?*—G. H. M., Merrill, Wis.

The Eastern roads did not reduce the standard mile rate (3.6c) for passenger fares, but merely offered the usual low round trip and week-end rates, with unusually cheap excursions now and then. The Western and Southern roads slashed fares very considerably, with one-way coach fares as low as 1½c a mile in the South and 2c a mile in the West, and 3c a mile (2c for 15-day round trip) in Pullmans upon payment of the Pullman fare. The surcharge, which is an additional fare levied on Pullman passengers on the theory that it costs more to haul people in a Pullman car because it seats fewer passengers, was eliminated. This reduced the actual Pullman fare by 1/3.

Isolated instances showed that these cuts were very successful. On many runs, especially in the South, 6 and 7 times the regular number of passengers was carried, and actual income was more than doubled. Nevertheless, total 1934 passenger revenues of Southern and Western roads did not exceed those of 1933 in any such proportion. Figures available at the time we went to press showed that passenger revenues of the Southern lines increased about 15%, and those of the Western and Mid-Western lines 1½%. What is more, those of the Eastern roads (which have not reduced fares) increased about 7½%, whereas total passenger revenues in this country increased a little less than 7%. Just what these figures indicate is not easy to say, for to interpret them fully would necessitate some guesswork about what the passenger revenues of the Southern and Western roads would have been *if they had not* reduced fares. They have much more highway and air competition to worry about than the Eastern roads, and even if they had only broken even by reducing fares, we believe the experiment would have been a success from many angles. In 1934 they carried about twice the number of people as they did in 1933, and in this way created a drift back to railroad passenger trains whose effect may prove to be far more valuable in the long run than the rather small immediate increase in passenger revenue. Certainly they lost nothing but bad will—of which all railroads can afford to lose plenty.

F. E. A., Aiken, S. C.—The Southern Ry.'s fast freight trains hauling fruit, vegetables, etc., from Florida to New York average 25 m.p.h., including all stops, for the 810 miles between Jacksonville and Potomac Yard, Va., where they are transferred to the PRR. Thus they rank among the fast freight trains of the country. See p. 129 of Dec., '34, issue for accounts of others.

*HOW much water and coal do the C&NW 4-8-4 type, 3000 series, consume per mile under average conditions?*

*(2) Can these engines use an ordinary crossover track without trouble? Can they be turned on a 100-ft. turntable?*—J. J. B., Brooklyn, N. Y.

(1) In passenger service, hauling 15-18 cars under maximum requirements, these engines use 46-50 tons between Chicago and Omaha, 488 miles (about 200 lbs. to the mile), and about 75,000 gals. of water. In freight service on the same run, hauling 4,500-5,000 tons, they burn 84-90 tons of coal and consume about 136,000 gals. of water. See "Is Steam on Its Way Out?" in this issue for figures on coal used by a light weight passenger train.

(2) They do, for the minimum curvature they can negotiate is 20°. Their total wheel base about 91 ft., and thus they can be handled without trouble on a 100-ft. turntable.

*Courtesy Locomotive Engineers' Journal*

**To Show He's Still Young Despite His 66 Years, Engineer J. C. Beach of the Northern Pacific Stood on His Head on the Sandbox of a Locomotive. He Says He Can Do It with the Engine Running a Mile a Minute, and That He Once Did It, Traveling 45 Miles an Hour, on a Trestle 231 Feet High. Mr. Beach Lives in Jamestown, N. D.**

*WHAT is the weight of the following types of cars: (1) baggage, (2) express, (3) mail, (4) combination, (5) coach, (6) observation, (7) Pullmans, (8) diners?*—D. B.

Weight of such equipment varies greatly, depending mainly upon the individual requirements of the road. (1), (2), and (3) run from 125,000-150,000 lbs., with many below and above these limits. (4) between 120,000 and 145,000 lbs. for 12-wheel cars and about 115,000 lbs. for 8-wheel cars. (5) between 115,000 and 135,000 lbs. for 8-wheelers and 140,000-155,000 lbs. for 12-wheelers. (6) between 150,000-180,000 lbs. (7) 164,300 lbs. (8) between 155,000 and 175,000 lbs.

*WHICH route has the most passenger traffic between Chicago and Los Angeles: the Santa Fe, UP-C&NW, or SP-Rock Island?*

(2) *What is the maximum super-elevation of the outer rail on curves? The maximum train speed of our major roads?*—D. Z. G., Prescott, Ariz.

(1) No authentic figures have been compiled on this subject, but we believe that if there were the Santa Fe would lead. Next would probably come the UP-C&NW, and close behind, the SP-Rock Island.

(2) Depends on speed and degree of curvature. It would be pointless to state the *maximum* super-elevation of the outer curve, for it might be just short of enough to tip over the train. The American Railway Engineering Association (AREA) has recommended this formula for the selection of elevation (which it adopted in 1929): $E = .00066DS^2$, in which E is the elevation in inches of the outer rail at the gage line, D the degree of curvature, and S the speed in m.p.h. Working this out, we find that on a 5° curve the super-elevation of the outer rail ought to be 2 in. for traffic traveling 25 m.p.h., 4 in. for 35 m.p.h., and 8¼ in. for 50 m.p.h. On a 10° curve it should be more than 8 in. at 35 m.p.h., while on a 1° curve it need be only 3¼ in. at 70 m.p.h. We might add that the speed selected by railroads when working out this formula is considerably less than the highest speed of passenger trains over the curves, for the obvious reason that even fast passenger trains are rarely run around curves at maximum permissible speed, and that freight trains are operated very much more slowly.

We don't believe there is a railroad in the country which does not "restrict" (on its employees' time cards) the speed of its fastest trains to at least 70 m.p.h. Yet everyone knows its trains consistently make higher speeds. On the PRR, for example, a certain train was scheduled on its public timetables to average more than 70 m.p.h. for 50 miles. At that time the official speed *limit* on the PRR, we are told, was 70 m.p.h. On a certain Mid-Western road the main line speed limit for passenger trains is 55 and 60 m.p.h., but its speed recorders show that some of its

The Government Owns and Operates Practically the Entire Railroad Mileage of Germany. So When Adolf Hitler Was Preparing to Win His Election Last August, He Plastered His Motive Power and Rolling Stock Full of "Vote Yes!" Signs

*Photo from R. Young, Camp 1001-G-5, Roseport, Ont., Canada*

**A Couple of Old Canadian Pacific Wood-Burners on the Nipigon River Bridge about Forty Years Ago. No. 18 (Right) Was Probably the "James McKay," Baldwin-Built in 1879 as No. 143, and Then Renumbered. The Other, No. 5, Was First 238, Then 29, Then 5, and Finally 44. She Had 17 x 24-Inch Cylinders and 63-Inch Drivers**

trains run 70 m.p.h. or more every day between certain points. Such examples can be found on almost every road. Thus the "speed limit" of lines seems to have little to do with the actual speed of many of their trains. And although we realize that it would be poor policy to do away with all speed restrictions, we feel that some revision of them is necessary.

G. H., Granite City, Ill.—Wabash Class I-2, 2-8-0 type, Nos. 2150-2155, 2157-2161, 2163-2166, has 19½ x 28 cylinders, 58-in. drivers, 200 lbs. pressure, weighs 174,500 lbs. (284,500 lbs. with tender) and exerts 31,206 lbs. t.f., was built by Brooks in 1905. Nos. 2151, 2163, 2164, 2166 have 215 lbs. pressure, exert 33,547 lbs. t.f.

(2) Union Pacific (LA&SL) No. 4226 is an 0-6-0 Forney type, built by Lima (1323) in 1913. Originally No. 10, it was renumbered to 4226.

*ARE Reading Nos. 350-353 the most powerful non-booster equipped Atlantic (4-4-2) types on any railroad?*—W. D. S.

Since these engines are rated to exert 32,800 lbs. t.f., they probably are. However, PRR Class E-6s exerts 31,275 lbs. t.f. at only 205 lbs. pressure, against 215 lbs. for the Reading engines. Both series have the same size pistons and drivers, and thus the PRR engines would be fully as powerful if their boiler pressure were equal to that of the Reading 4-4-2's. What is more, the PRR engines are almost 12,000 lbs. heavier. Pressing these two closely is Southern Pacific's 3000 series, which has larger drivers (81½ in.), weighs slightly more than the PRR Atlantic type, and exerts more than 41,000 lbs. t.f. with booster, but only 30,000 lbs. alone.

*I HAVE seen a photo of a Frisco Mikado type with a little house on the back end of the tender. What is it for?*—R. A. W.

For the head end brakeman

T. W. S., Headland, Ala.—Atlantic Coast Line No. 490, 4-6-2 type, was changed to No. 1517 before it left the builder's works. The ACL has retired none of its Pacific types.

R. D., Saratoga Springs, N. Y.—The Cambria & Indiana was incorporated in 1904 as the Black Lick and Yellow Creek RR. Its name was changed in 1911. It runs between Manver and Colver (19 miles), Elkdale Jct. and Rexis (4), Colver and Colver Hts. (2), Regan Jct. and Nanty Glo (8), Nanty Glo and Revloc (5), all in Pa. Total mileage 38, it has 8 locos, 3,436 frt. cars.

(2) The Saratoga & Schenectady RR was chartered Feb. 16, 1831, opened in 1833, leased in 1851 to the Rensselaer & Saratoga, and sub-leased

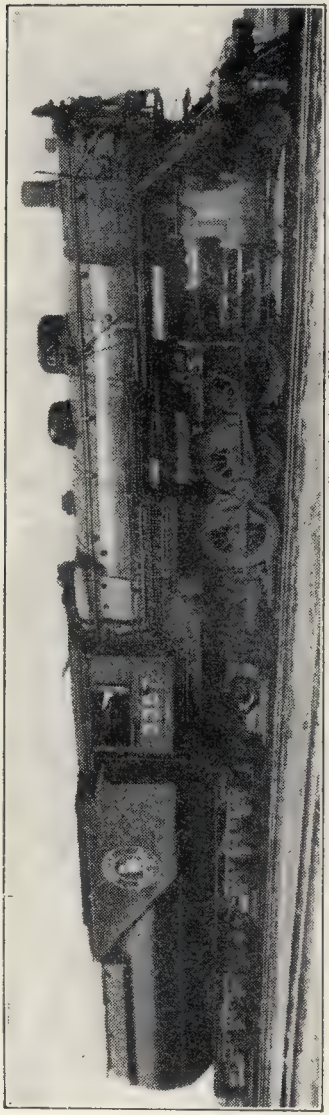


*Photo by A. C. Noble, 620 West Providence Ave., Spokane, Wash.*

**When Is a Mike Not a Mike? When She Has Only Six Drivers! This Great Northern Mikado Type (No. 3357) Was Standing on the Sand Track at Spokane with Her First Pair of Drivers Missing, but She Didn't Seem to Be Much the Worse for It**

to the Delaware & Hudson Canal Co. (now D&H RR) in perpetuity. It ran between Schenectady and Saratoga, 21 miles.

P. M., Flint, Mich.—The Keeweenaw Central was chartered in 1883 as the Lac La Belle & Calumet, changed to its present title in 1905. It was opened from Mohawk to Mandan, Mich., in 1907; Calumet to Mohawk in 1908. In 1917 it ran from Calumet Jct. to Mandan, 26 miles, and with branches to Crestview, Lac La Belle and Ojibway, was 36 miles long. It was controlled by the Keeweenaw Copper Co., had 3 locomotives and 95 cars. About 1917 it was abandoned, dismantled and sold.

D. A., Baltimore, Md.—The Nantucket RR was opened in 1881 from Nantucket to Surfside (3 miles), on Nantucket Island, and to Siasconset (11 miles) in 1884. In 1892 it had 2 locomotives and 7 cars. In 1897 it became the Nantucket Central. It ceased operating Sept. 15, 1917.

K. E. B., Gary, Ind.—The Kansas City Northwestern Ry. was chartered in 1893 to take over the Kansas City, Wyandotte & Northwestern Ry., which in turn was a consolidation of the Kansas City, Wyandotte & Northwestern RR and the Leavenworth & Olathe. In 1895 the line was 174 miles long, and ran from Kansas City through Seneca, Axtell and Summerfield to Virginia, Neb., including a branch to Ft. Leavenworth. It had 18 locomotives, 477 cars, was controlled by the MoP. In 1917 it was reorganized as the KCNWRR, but was discontinued two years later, and is now, we believe, entirely abandoned.

E. L., Villa Park, Ill.—The old Chicago Great Western Mallets used about 25 years ago were 2-6-6-2 type, numbered in the 650 series. We have no specifications on file.

G. A. W., Clarksburg, W. Va.—The Monongahela Ry. was incorporated in 1900, opened 1903 as the Monongahela RR. The name was changed to Monongahela Ry. in 1915, when it consolidated with the Buckhannon & Northern. It is now controlled by the PRR, P&LE and B&O. It has 55 locomotives in service, roster of which was printed in our Dec., 1933, issue.

R. R., Hoboken, N. J.—The present PRR four-track, stone-arch bridge over the Raritan River at New Brunswick, N. J., was completed in 1903, when tracks were elevated through New Brunswick. It replaced a steel truss double-track bridge built in 1896, which, in turn, replaced a plate-girder bridge opened in 1879.

(2) The contact wire of a catenary system such as used by the PRR is estimated to last fifty years where standard suspension is used (out in

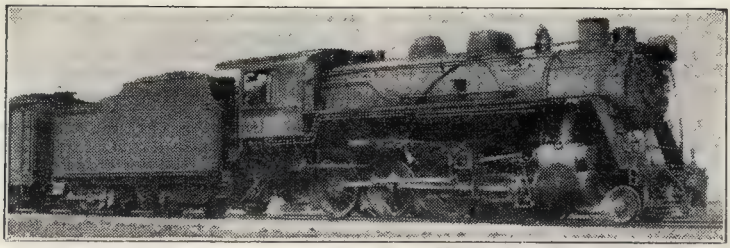


*Photo by Linwood Moody, Union, Me.*

**No. 183, a Modern Consolidation Type of the Bangor & Aroostook. She Is Equipped with Front End Throttle and Tender Booster.** **See Page 88 for Specifications**

the open), but under bridges and through tunnels, where the contact is often broken because of the rigidity of the catenary, and where the pantograph presses harder against the wire, the life of the contact wire is estimated to be 15-18 years. The shoe of the pantograph (which is the "trolley" of the locomotive) is made of very soft steel, and has to be renewed about every 6,000 miles. However, it is easy and cheap to install.

C. C. M.—The NC&StL no longer has 4-8-0 types in service. Eight years ago it scrapped three such engines, Nos. 850-852, which had been built by Schenectady in 1897 for the Butte, Anaconda & Pacific (its Nos. 16-18), and purchased by the NC&StL from that road. They had 23 x 32 cylinders, 56-in. drivers, 170 lbs. pressure, weighed 193,000 lbs. without tender, exerted 43,700 lbs. t.f.

(2) The SAL no longer has 2-8-8-2 type Mallets. In 1917 the Alco Richmond Works built 16 such engines (Nos. 500-515) for the SAL, but they were sold to the B&O in 1920. They had 26½ and 42 x 32 cylinders, 63-in. drivers, 210 lbs. steam pressure, weighed 691,000 lbs. with tender, exerted 117,300 lbs. t.f. simple and 97,800 lbs. compound. The SAL has the following 2-10-2 types: Nos. 2400-2409, 2485-2499.

*I HAVE a picture of NYC No. 4724 as a Pacific (4-6-2) type engine, but the illustration on p. 13 of your Dec., 1934, issue shows her to be a Prairie (2-6-2) type. Is the former the same one rebuilt?*—M. D., Youngstown, O.

Yes. Class J-4I, 2-6-2 type of the NYC (originally built for the LS&MS in 1905 by Alco), Nos. 4701-4734, were rebuilt to Class K-4I, 4-6-2 type, same numbers, between 1915-1919. They are still on the NYC list, have 22 x 28 cylinders, 79-in. drivers, 200 lbs. pressure, weigh 265,000 lbs. without tender, exert 29,160 lbs. t.f. Thus their main specifications are the same as Class K-2, Nos. 4800-4894. Class K-3, Nos. 4895-4899, however, are bigger all around. They have 23½ x 26 cylinders, 79-in. drivers, 200 lbs. pressure, weigh about 295,000 lbs., exert 30,900 lbs. t.f. The 4600-4603 (Class M-1) series is not 4-6-2 type, but 0-10-0.

A. C. N., Spokane, Wash.—The Idaho & Washington Northern RR was chartered in 1907, was built the same year from McGuire's, Ida., to Newport, Wash., with a 6-mile branch to Clagstone, Ida., 51 miles; was later extended from Newport to Metalin, Wash., 65 miles. In 1908 it had 9 locomotives and 174 cars. It was taken over by the Milwaukee Road in 1916. We have no data on its motive power.

*WHAT is the railroad man's favorite color? (2) Was there a railroad called the Overland Central?*—M. J. S., Fargo, N. D.

(1) This one sorta stumps us, brother. When he's on the road the railroad man likes to see green most of all. When it comes to working clothes, blue overalls with red bandannas are his choice. When he picks his reading matter, he always grabs for the red-covered RAILROAD STORIES. Which one do *you* like best?

(2) Never heard of it, and can find nothing about it.

T. B. A., Orange, N. J.—The Poughkeepsie & Eastern, which ran from Poughkeepsie to Millerton, N. Y., 45 miles, was chartered in 1866, opened in 1872 and known as the P&E until 1875, when it was sold and reorganized as the Poughkeepsie, Hartford & Boston. Twelve years later the PH&B consolidated with the Hudson River & Boston to form the N. Y. and Massachusetts Ry., and the name PH&B was dropped.

J. L. P., Brooklyn—The old Walkill Valley (or Wallkill Valley) was organized in 1866, opened in 1872, operated by the Erie until 1879, although in 1877 it was sold to the North River

Const. Co. It ran from Kingston to Montgomery, N. Y., 34 miles, and in 1893 had 3 locomotives and 19 cars. In 1899 it was leased forever to the NYC&H, and then operated as part of the West Shore.

F. I., Trail, B. C.—There is no real narrow-gage railroad called the Rainy River.

J. F., New York City—The old St. Louis, Rocky Mountain & Pacific Ry, at one time contemplated an extension of its line from Ute Park, N. M., west via Eagle Dam and Apache Pass to Taos. The line was never built. In 1913 the StLRM&P was acquired by the Santa Fe, and two years later it was called the Rocky Mountain & Santa Fe Ry.

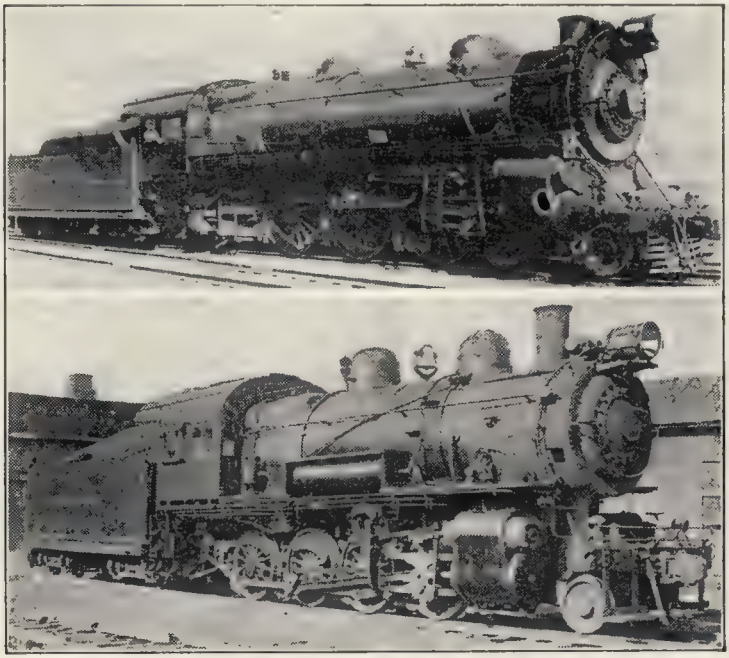
H. L. W., Lewisburg, Pa.—The Ligonier Valley RR was incorporated in 1853 as the Latrobe & Ligonier, changed to present name in 1871. It runs from Latrobe to Ligonier, Pa., and with a branch from Ligonier is 16 miles long. It has 4 locomotives, 2 cars.

PRR Class N-15, 2-10-2 type, has 30 x 32 cylinders, 62-in. drivers, 215 lbs. pressure, weighs 435,000 lbs. without tender, exerts 84,890 lbs. t.f.

J. W., Cincinnati—The Cincinnati, Lebanon & Northern was inc. in 1888 to succeed the old Cincinnati Northern, which was opened in 1881. In 1925 it ran between Cincinnati and Dayton, Middletown and Middletown Jct., Blue Ash and Montgomery, Hempstead and Clement, O., with a total line mileage of 76. It is now part of the PRR.

(2) Following is list of steam railroads operating in Ohio:

Akron & Barberton Belt
Ann Arbor
Akron, Canton & Youngstown
Bessemer & Lake Erie
Baltimore & Ohio



Here Are a Couple of Odd Ones: Pennsylvania R. R. Nos. 1 and 9999. The Latter (Upper), So Far as We Can Discover, Has the Largest Steam Locomotive Number in the Land. She Is 4-6-2 Type, Class K-2s. No. 1 (Lower) Is 2-8-0 Type, Class H-6sb

Bay Terminal
Chesapeake & Ohio
Culver & Port Clinton
Cuyahoga Valley
Detroit & Toledo Shore Line
Detroit, Toledo & Ironton
Erie
Fairport, Painesville & Eastern
Lakeside & Marblehead
Louisville & Nashville
Lorain & Southern
Lorain & West Virginia
Lake Terminal
Newburgh & South Shore
Norfolk & Western
Northern Ohio (AC&Y)
New York Central Lines
Nickel Plate Road
Pittsburgh & Lake Erie
Pittsburgh & West Virginia
Pennsylvania
Pittsburgh, Lisbon & Western
Pere Marquette
River Terminal
Toledo, Angola & Western
Toledo Terminal
Southern Ry. System
Wheeling & Lake Erie
Wabash
Youngstown & Northern

H. J.—The Saratoga & Encampment Ry. was incorporated in 1905, ran from Walcott to Encampment, Wyo., 45 miles, was taken over by UP in 1921, is now abandoned.

We can find no data about the Gilpin RR or the Gilpin County Tramway.

*WHERE does the Milwaukee Road's "Olympian" change engines and crews between Chicago and the West Coast?*

*(2) What is the average speed of the Milwaukee's new freight train between Chicago and St. Paul, and where does it change engines and crews?*—J. F. S., Clara City, Minn.

(1) The "Olympian" leaving Chicago changes engines at Minneapolis, Harlowton, Avery and Othello; engine crews at Milwaukee, LaCrosse, Minneapolis, Montevideo, Aberdeen, Mobridge, Miles City, Harlowton, Three Forks, Deer Lodge, Avery, Othello; train crews at Milwaukee, La Crosse, Minneapolis, Aberdeen, Mobridge, Miles City, Harlowton, Deer Lodge, Spokane.

(2) The schedule is 11 hours, averaging about 37 m.p.h.; engine changed at Milwaukee; engine and train crew at Milwaukee, Portage, La Crosse.

H. W. P.—Portland Terminal Nos. 807-811 have 19 x 24 cylinders, 51-in. drivers, 180 lbs. pressure, weigh 223,700 lbs. with tender, exert 26,000 lbs. t.f., built by Alco 1904-1906. No. 820 has same dimensions except that it weighs 211,000 lbs., has 160 lbs. pressure, exerts 23,600 lbs. t.f., built 1909. Nos. 821-829 have 20 x 26 cylinders, 180 lbs. pressure, 51-in. drivers, weigh 227,000-249,550 lbs. with tenders, exert 31,200 lbs. t.f., were built by Alco 1910-1913. (No. 823 has been scrapped.) Nos.. 830-835 have 21 x 28 cylinders, 51-in. drivers, 180 lbs. pressure, weigh 280,300-291,300 lbs. with tender, exert 37,000 lbs. t.f., were built by Alco 1917-1920.

J. F.—The Wheeling & Lake Erie Ry. was inc. in 1916 to succeed the W&LERR, which had undergone several reorganizations. It is 512 miles long, has 168 locomotives, 11,305 freight, 29 passenger, and 273 miscellaneous cars.

(2) The following steam roads operate in North Carolina:

Alcolu
Atlantic Coast Line
Augusta Northern
Bamberg, Ehrhardt & Walterboro
Bennettsville & Cheraw
Blue Ridge
Buffalo, Union-Carolina
Carolina & North-western
Carolina Western
Charleston & Western Carolina
Charlotte, Monroe & Columbia
Chesterfield & Lancaster
Georgia & Florida
Clinchfield
Columbia, Newberry & Laurens
Due West
Edgmoor & Manetta
Greenville & Northern
Hampton & Branchville
Lancaster & Chester
Pickens
Raleigh & Charleston
Rockingham
Seaboard Air Line
Southern
Ware Shoals

R. J. B., San Francisco—Usually you can figure about 4½ inches of slack for each railroad box car, although the amount varies with the stress and condition of equipment. See p. 83 of our June, 1934, issue.

See review of "Famous American Trains" in this department last month. It describes our most famous trains. Although it does not list them all, we know of no publication that does. A couple years ago H. C. Barker, 1136 Connecticut St., Lawrence, Kan., published a pamphlet called "Distinctive American Trains" (35c), which described our most important trains briefly. We do not know whether or not it is in print.

*Photo by Linwood Moody, Union, Me.*

**Bangor & Aroostook No. 85, Class D-2. Photo of No. 183, 2-8-0 Type, Appears on Page 85**

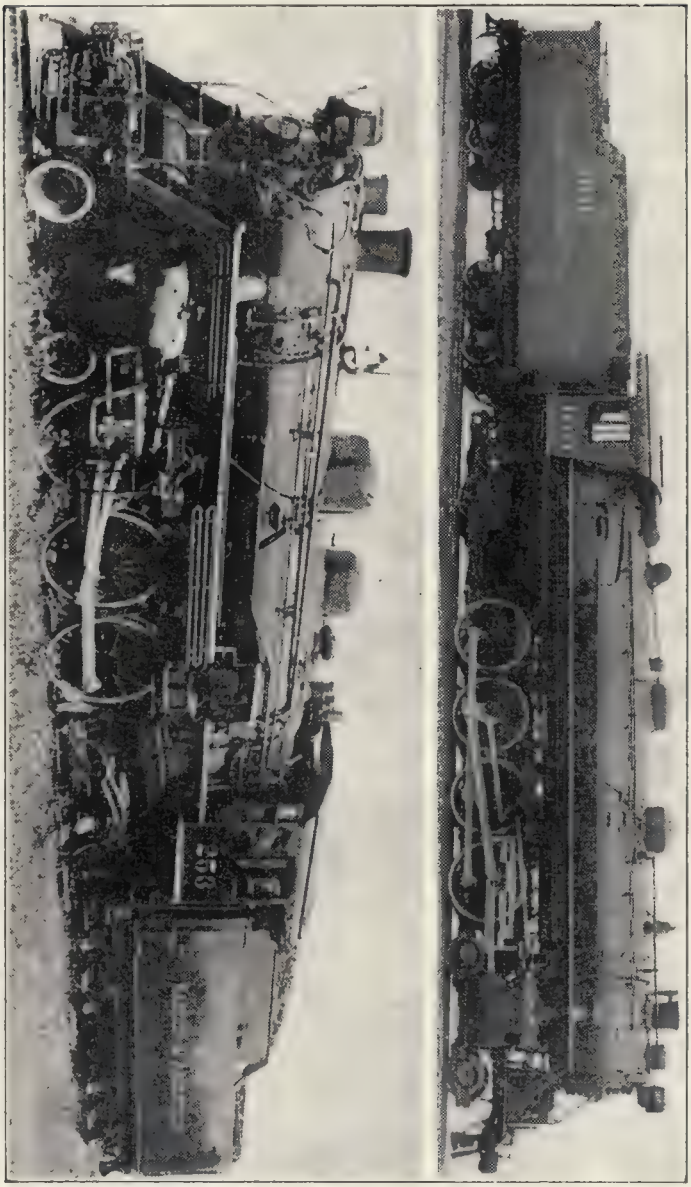
# Locomotives of the Bangor & Aroostook R. R.

| Class | Type | Numbers | Cylinder Dimensions (Inches) | Driver Diameters (Inches) | Boiler Pressure (Pounds) | Weight without Tender (Pounds) | Tractive Force (Pounds) | Builder and Date |
|---|---|---|---|---|---|---|---|---|
| D-1, D-2 | 4-6-0 | {51, 53-56, 58-62, 65-71, 73, 75, 82-87} | 20 x 26 | 63 | 180 | 144,500 | 25,380 | {Manchester, 1901-1902, 1905-1907} |
| D-3a | 4-6-0 | 90, 91 | 20 x 26 | 63 | 200 | 165,100 | 28,200 | Manchester, 1911 |
| D-3b | 4-6-0 | 92, 94 | 20 x 26 | 63 | 200 | 165,500 | 28,200 | Manchester, 1911 |
| D-3c | 4-6-0 | 93, 95 | 20 x 26 | 63 | 200 | 164,600 | 28,200 | Manchester, 1911 |
| E | 4-6-0 | 140-142 | 22½ x 26 | 63 | 175 | 184,300 | 31,080 | Rhode Island, 1906 |
| C-1 | 4-6-0 | {242 (was 62)<br>243 (was 79) | 19 x 26<br>19½ x 26 | 69<br>69 | 190<br>190 | 146,000<br>162,000 | 22,000<br>23,180 | Manchester, 1902<br>Manchester, 1907 |
| M | 4-8-2 | 100-106 | 22½ x 30 | 63 | 240 | 315,300 | 60,200 | {Schenectady, 1929-1930} |
| | | (This class exerts 50,000 lbs. t. f. without booster) | | | | | | |
| G | 2-8-0 | 170-172 | 23 x 30 | 57 | 175 | 204,100 | 41,470 | Rhode Island, 1907 |
| G | 2-8-0 | 183 | 22 x 30 | 57 | 210 | 219,300 | 59,900 | Schenectady, 1914 |
| | | (T. f. with tender booster) | | | | | | |
| G | 2-8-0 | 192-195 | 23 x 30 | 57 | 190 | 215,000 | 45,000 | Schenectady, 1924 |
| G-a, b | 2-8-0 | 180-182, 184, 185 | 23 x 30 | 57 | 190 | 210,000 | 45,000 | {Schenectady, 1914, 1916} |
| G-c | 2-8-0 | 186-191 | 23 x 30 | 57 | 190 | 212,000 | 45,000 | Schenectady, 1921 |
| | | (No. 188 has 200 lbs. pressure, exerts 47,400 lbs. t. f.) | | | | | | |
| F | 4-6-2 | 250-254 | 21 x 28 | 69 | 210 | 237,000 | 32,000 | Schenectady, 1927 |
| | | (No. 250 has 220 lbs. pressure) | | | | | | |
| H-2 | 4-4-0 | 204, 207 (were 14, 21) | 16 x 24 | 69 | 160 | 93,600 | 12,166 | {Manchester, 1893, 1894} |
| H-3 | 4-4-0 | 206 (was 16) | 16 x 24 | 63 | 150 | 81,500 | 12,450 | Manchester, 1893 |
| K | 4-4-0 | 210, 212, 213 (were 9, 11, 12) | 18 x 24 | 63 | 160 | 104,000 | 16,800 | Manchester, 1893 |
| P | 0-6-0 | {321-324 (were 64, 71, 80, 81) 325} | 19 x 26 | 51 | 180 | 131,300 | 28,080 | {Manchester, 1907 (321 in 1905)} |
| S-a | 0-8-0 | 330 | 25 x 28 | 51 | 185 | 217,000 | 54,000 | Schenectady, 1928 |
| S-1a | 0-8-0 | 340-341 | 25 x 28 | 52 | 210 | 245,000 | 60,000 | Schenectady, 1931 |

Total: 81 engines.

Historical note: Nos. 50 and 52 (Class D-1) sold to Belfast & Moosehead Lakes, are now Nos. 17 and 18 of that road. No. 211 (Class K) now B&ML No. 16. The Bangor & Aroostook also sold all its 2-6-0 (Mogul) types: No. 3 became Woodstock Ry. No. 4 ("H. H. Paine"); Nos. 30 and 32 went to the Quebec Central; No. 34 to the Dominion Coal Co.; Nos. 31, 33, 35, 36 to the Hoisting Mach. Co.

NEXT MONTH: MINNEAPOLIS & ST. LOUIS R.R.



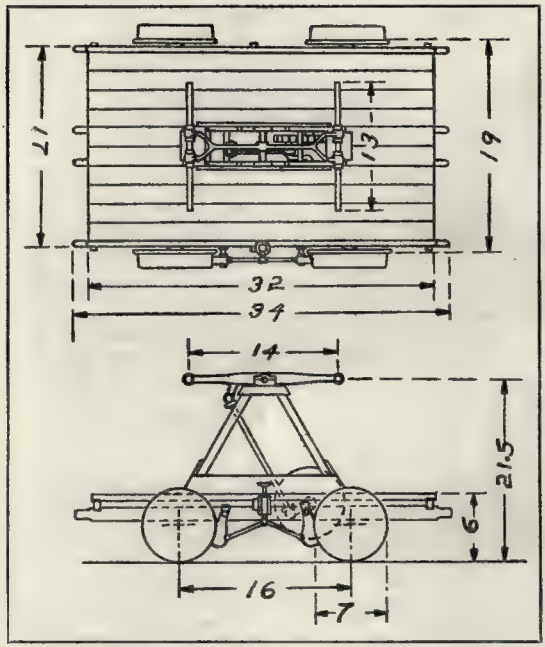
The Bangor & Aroostook's Largest Freight and Passenger Power: No. 100, One of Its 4-8-2 Types; and No. 253, One of Its Pacifics

*Photo of No. 253 by Linwood Moody*

# How to Build a Model Hand Car

By CHARLES G. CUNNINGHAM

□ □ □




Overhead and Side Views of Hand Car Model Described Here

I BUILT a hand-car model without spending a cent on material. The wood was picked up from a lumber yard. Brass for the wheels came from an old brass bolt. Axles were made of old piano wire. Some of you fellows who decide to build a hand car may buy the exact material mentioned in this article, although something else would do just as well. I used to buy things, too, when I really didn't have to. Then I got wise to myself. Now I create models out of anything handy.

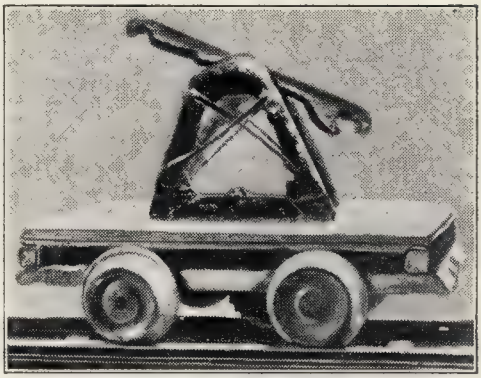
In making the hand car, first get a piece of hardwood maple, if possible. It should be the kind of wood that has fine little burls or knots in it. One piece ½ x 1 x 2" will supply all the wood you need for the car itself. A line should be *scribed* (marked) about 1/16" in from a squared edge. Cut this off so it will give you a slab of wood 1/16" thick x ½" wide and the length of your block. This will supply cross-beams, longitudinal members, and upright posts on top where the handles are placed.

With the ½" wide face lying flat on the table, mark additional lines which will just cover the top of the piece with 1/16" lines. Take a piece of steel or a scale and cut out the strips with a safety-razor blade. Don't let the scale slip; otherwise you would ruin 2 pieces and your fingers.

Select 4 of the squarest pieces and cut them off 35 mm. long, as measured by your millimeter rule. Make sure the cut is on all 4 faces; this avoids splintering and waste. On each end shape a handle such as you used to see on old-fashioned wooden wheelbarrows. Sand well, lay aside.

Next you need 4 cross members. Using the same 1/16" square material, cut 4 pieces, each 19 mm. long. There is nothing left to do with these except sand them.

Don't try to sand them after they are in place, as this would only result in breaking them. Note that the cross members stick out a little beyond the car edges, not more than ½ mm. at the most. These also are laid aside. Put all finished parts in a small box. Nothing is so hard to find on the workshop bench as a tiny piece of wood.



Finished Model of Hand Car. (Photo Slightly Enlarged)

Make a small block 5 mm. square for holding the bull gear on the underside. This about finishes the under parts made of wood. The floor or main frame is a rectangular piece of maple 2 x 18 x 32 mm. In the middle of this floor cut a hole 2.5 x 10 mm. long. Be sure this is in the exact center. Now make uprights for pump handles. Bottom sills are 1.5 mm. square, 13 mm. long. Taper these 2 pieces on the top edge as in the drawing. When making the uprights, lay them on a piece of drawing-paper and glue them together there. Later cut away the paper. This gives the parts support while drying.

Pump handles are made of match sticks. The frame is a piece of tin, cut (as the drawing shows) with a No. 60 drill hole in the lower part. Some model builders are in too great a hurry to make wheels. They turn and drill more than one wheel at a time. That causes wobbly wheels.

When drilling holes for wheels which are 7 mm. in diameter, use a No. 62 drill. Axles are No. 60 drill rod or an equivalent diameter in piano wire. Cut the drill rod off 22 mm. long. Solder wheels to axle on back, forming little fillets or flat molding.

The other pair of wheels is not put together until you have forced a gear wheel onto the axle. The bull gear is easily made of a large size watch wheel. In this gear drill a hole, the center of which will come just about 1.5 mm. from the bottom of the gear's teeth. This hole is for the crank pin. The crank pin is a short piece of No. 60 drill rod not more than 4 mm. long. Solder a small piece of tin onto this to hold the crank rod in place.

Holders for axles are made of staple from the stapling machine. They are bent into U form and forced into bottom of car.

To assemble, first varnish the 1/16" square sticks, but not the floor. Using a good grade of ambroid, stick the cross-beams on first. The 2 end ones go right in line with edge of floor. The 2 middle ones are in line with edges of center hole. After these have dried, put longitudinal beams in place. Outside beams are in line with sides of car. The 2 center beams also are in line with the center hole; that is, 15 mm. from center of car floor. Center of axles is 8 mm. from ends of car.

Use your own judgment in placing the 5 mm. square block so the bull gear will line up with the one on the axle. Paint all metal parts black. Connecting rod from pump handles is formed like the one in the drawing and made out of No. 60 drill rod. Rest of car is easy to assemble.

*Next month I will tell you how to build a realistic model of a rotary snow plow. This is the season for them. Readers who have already built snow plows (any kind) are invited to submit good clear photos for publication in this magazine.*

# The Model Trading Post

**FREE listing here for readers desiring to trade model equipment; also for news of model clubs, and letters from fans telling how they build engines, cars, bridges, etc. This is a Trading Post, not a store. Don't ask us to print any more free announcements of anything for sale.**

**Use reply postal card or enclose stamped envelope in writing to names listed here. (This does not apply to Americans writing to Canada or Canadians writing to U. S.) Please note: Postal card rate between U. S. and Canada is 2c., not 1c.**

**Letters to be printed in our April issue (out March 1) must be received before Jan. 15.**

* * *

I BUILT a Mallet compound model easily and cheaply, using largely scrap material. The boiler was a piece of 4" pipe turned to shape in a lathe. Cab, tender, etc., were made of 16 gage sheet steel, while cylinders, domes and stacks were cast of aluminum. Drive wheels were cast of brass at a nearby foundry from patterns I made of aluminum. This cost $3, the largest single item. The whole job cost $6.

The locomotive is 5' 2" long, 10" high by 7" wide. She runs on a track 3¼" wide, about a ¾" scale. She has a polarity relay in the tank which reverses her by simply reversing the track polarity at some point in the system.

My first thought was that if I could make the drive wheels I could easily do the rest. Of course, they could be purchased, but I preferred to build my own. Therefore, I made up a set of patterns of aluminum by first turning out 2 discs on a lathe 3" in dia. These discs were flat on one side, the other side being tapered down from the center until within 3/16" of the outer edge. This gave the correct shape for the rim. The finished pattern is ¼" in thickness.

Next place the surfaces of the discs together, and dowel-pin, so that the finished pattern can be taken apart in 2 halves. Mark out for the spokes, counter-weights and crank pin. Drill between the spokes and work them out with a small file. It is not strenuous work, as aluminum cuts easily. Cut out the pieces and pin on to make the hub and counter-weights stand out. Counter-weights must be fastened on so they can be removed, as different sized ones must be used for main drivers, etc. All parts must taper from the middle to the outside of each half of the wheel, so it will draw out of the moulding sand readily.

I now had a set of drive wheel patterns which any foundry could cast from. My wheels are made of tough brass, and shrunk on the steel tires.

Next I made the frame. As Mallets have a hinge in the frame it was necessary to make it in 2 sections. These sections differ somewhat. The front section carries the low-pressure cylinders, pilot beam, coupler and pony truck on the front end. The back section has the high-pressure cylinders on the front end and the trailer on the rear. Trailers are generally made as a separate unit, but I made this one rigid with the main frame. This method proves satisfactory. My frame is made the same as the real ones and has journal boxes for the drivers. I took 1 ¼" x ⅜" steel bar and marked out the frames. By drilling and filing out the openings for the boxes and spaces between, a very rigid and real likeness frame can be made.

Next came the cylinders. They were cast from aluminum. Aluminum is good for model making. It can be melted in most any coal range or furnace. When melted it is easy to handle. Make any mould or form from sheet and pour in the metal. It is not bad about leaking out, and after cool, peel off the sheet iron and you have a very nice casting. Domes and stack can be made in like manner.

After the cylinders were mounted came the boiler. This was made from a piece of 4" pipe turned to shape in the lathe on the drum end and fitted with a sheet-iron back end and firebox. All sheet iron used was 16 gage. Some may have difficulty in working sheet metal, so let me say that sheet metal is placed between them and clamped in a vise. With a little practice it is easy to flange, bend, stretch or work the metal in most any form.

Now mount the boiler, after which one is encouraged and can go on and elaborate with the trimmings as desired—air reverse gear, air and feed-water pumps and injectors. By looking at some real ones it is easy to see how they can be made for any model. The cab is made as before mentioned, by shaping 16 gage metal over forms. Tender, steps and door are all made likewise.

The model weighs 120 lbs. This is not all natural weight, as I put lead in the boiler to give it more traction. She can pull 10 or 12 cars carrying my 78 lb. son quite easily. She is electric driven through a 3d rail in the center of the track. Power

**is supplied through worm gear to each set of drivers. A remodeled Essex starting motor was used, placed in the firebox. The gear ratio between motor armature and drivers is 48 to 1. This gives plenty of power. The motor was reduced in size about one-third. This is quite a job, but I believe anyone handy with tools can do it.**

**I have quite a railroad in my back yard—a tunnel, a trestle and switches, etc. Also a gas-electric car for passenger service, together with a wrecking crane, a snow plow and several types of cars.**

**I will prepare the working drawings of my locomotive with more complete details if I receive enough requests for them.** —Leonard Cooper, Colliersville, N. Y.

* * *

**HAVE built a 2½" gage Pacific type engine containing the fittings I described in May '34 "Railroad Stories." Cylinders are ¾"x1 1/16", inside admission piston valves are actuated by Walschaerts valve gear, load 1/64", travel 5/16" in full gear, drive wheels 2 15/16" dia., full equalized spring rigging, front truck of swing-link pattern, and trailing truck of commonwealth Delta type with correct type rockers.**

**The boiler is of the extended wagon-top buttstrop type. It supplies superheated steam at 80 lbs. pressure. Soft coal or wood is used for fuel. The crown-sheet is girder stayed on top and stayed by bolts on the sides. There are 22 grate bars in the firebox. Exhaust nozzle is 5/32" dia. and the steam fills the ⅞" dia. smokestack nicely.**

**This model is one of the smallest complete all-working locomotives.** — Vernon Smith, 509 1st. S. W., Crosby, Minn.

* * *

WHAT am I offered for new wind-up train, 4 switches, 27 straight and 12 curved sections of track?—A. Rynearson, 219 Main St., Flemington, N. J.

* * *

I WILL sell or trade a ¾ in. scale, 2-8-2, Pacific coal-fired loco., 1½ in. bore cylinders, a real pass. hauler, length 4 ft. 10 in. What have you?—J. E. Beggerstaff, 621 Greenwood Pl., Winnipeg, Canada.

* * *

WANTED: Lionel No. 260E loco., good condition.—Stiles Martin, 724 N. Hunter St., Stockton, Calif.

* * *

WHAT am I offered for $80 A.F. outfit, O gage?—George Kusner, 4524 Lawndale Ave., Lyons, Ill.

* * *

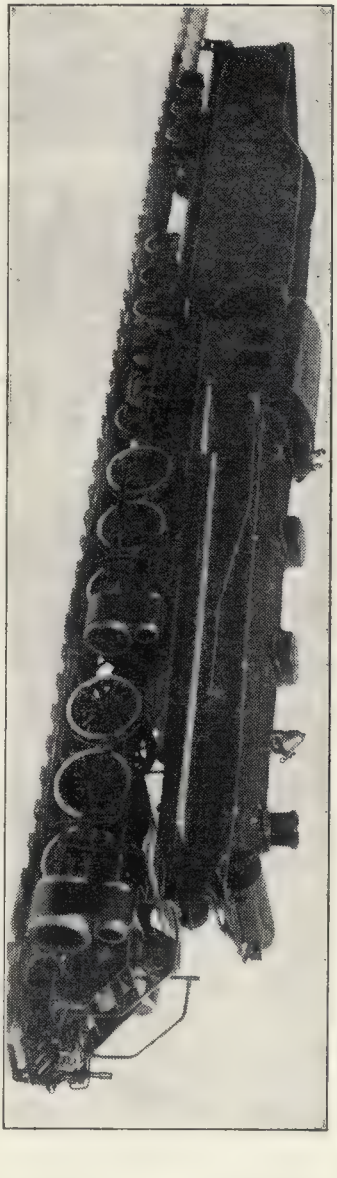
WANTED: Used standard gage pass. and frt. Lionel and A.F. rolling stock and locomotives. Also N.Y.C. calendars, 1922, 1924; any P.R.R. cal. before '26.—F. R. Fair, Mankato, Kan.

* * *

FANS in this locality, please write. I have a model system, "Wyoming Midland."—Harry Watson, 857 Greenwood St., Glencoe, Ill.

* * *

I HAVE copies of "Railroad Stories": Jan. '20, Apr. and May '31; Mar. to Dec. '32; all of '33 and '34. Also "Model Craftsman," May to Dec. '33; Jan. and Feb. '34. Will trade for any of following O gage equipment: Locomotive



This Model of a Mallet Locomotive, Built by Leonard Cooper of Colliersville, N. Y., Is as Sleek and Graceful as an Ocean Greyhound

Interesting Replicas of Old and Modern S.P. Power, Made by C. J. Krischke

(elec.) steam type or elec. type in good condition; pass. or frt. rolling stock; P.R.R. frt. or pass. cars. For complete Lionel train I will make much better offer.—Ralph Yerger, 537 Queen St., Northumberland, Pa.

* * *

PHOTOS show two ¾ in. scale engines which I built. No. 613 is used by the S.P. main line through here. The diamond stack type, No. 4, was built from my imagination. Both models were made of odds and ends of wood, tin, lead, etc., the only cost being 10c for rivet effect nails and $2 for electricity used by home-made turning lathe. Actual working time for both models, 250 hours. Bells were made of lead. All the lever motion operates; on the 613 the reverse gear moves: brakes set tight when operated by lever in cab. Entire length of the 613 is 64 in., height 12 in., width 8 in. No. 4 in proportion. Both models have been shown in various exhibits.—C. J. Krischke, Schulenburg, Texas.

* * *

I WISH to dispose of my Lionel standard gage equipment; write for details.—David Sunkin, 1702 St. Peters Ave., N. Y. City.

* * *

WHO can tell me how to make a reverse for model engines? Who will exchange pair O gage double trucks for pair standard gage double trucks?—John O'Shaughnessy, 316 Pearl St., Cambridge, Mass.

* * *

WHAT am I offered for Lionel standard gage locos. Nos. 9E and 8; 5 pass. cars, 3 frt. cars, 3 sets switches, 15 curved, 40 straight track; all or part?—C. E. Mitchell, 237 W. 109th St., N. Y. City.

* * *

I WILL exchange Ives standard gage elec. loco., N.Y.C.&H.R. type, for Lionel frt. cars. Also disposing of O gage equipment.—Lawrence David, 26 S. Franklin Ave., Valley Stream, N. Y.

* * *

WANTED: 125 ft. of used standard gage rail, also ties, fishplates, U bolts, spikes, etc.—Arthur Clauter, 9730 S. Damen, Chicago.

* * *

1935 EDITION, "Official Guide to Model Railroads in America" (illustrated), would be a valuable addition to any model railroader's library. Compiled by A. C. Kalmbach, editor of "The Model Railroader" magazine, and issued by A. C. Kalmbach & Co., Wauwatosa, Wis. It has 18 pages of descriptive directory of model railroad clubs and large model railroad systems all over the U. S. and Canada, enabling fans to establish contact with kindred spirits in their locality.

* * *

ALBANY fans, join the new Model Railroad Club!—Edgar Coon, 509 Washington Ave., Albany, N. Y.

LOCAL fans interested in forming model club write to Browning Halley, 1721 Hilldacrest, Huntington, W. Va., or to Bruce Hatcher, 1824 Winchester Ave., Ashland, Ky.

* * *

I WISH to dispose of Ives standard gage train: 3243R elec. engine, No. 187-3 buffet car, No. 188-3 parlor car, No. 189-3 ob. car; also A.F. transformer for use on A.C., 110 volts, 60 cycles, 100 watts.—Raymond Moore, Box 276, Corvallis, Mont.

* * *

18 RARE old passes from 12 different roads, incl. Colo. Midland and others no longer in existence, dated between 1872 and 1907, for sale or will trade for Lionel or A.F. standard gage equipment, good condition.—W. J. Phillips, Riverside Drive, Ogdensburg, N. Y.

* * *

WANTED: Used O gage rolling stock and track, no junk.—John Jablonower, 3902 Spuyten Duyvil Pkway., Kingsbridge Sta., N. Y. City.

* * *

WANTED: Four used Lionel standard gage cars, 424 or 425.—Marcus Beck, 315 W. 106th St., N. Y. City.

* * *

WILL swap 6 single-truck Lionel O gage frt. cars, all good condition, for 3 double-truck cars, same kind.—R. Oberrecht, 20 Grant Ave., Auburn, N. Y.

* * *

I AM disposing of my Lionel standard train set; write for details.—H. Iselin, 226 Mt. Hope Place, Bronx, N. Y.

* * *

MODEL builders of C.&O. power, 17/32 in. scale, please write.—Bernard Corey, Box 233, Thorold, Ont., Canada.

* * *

I NEED used O gage A.F. 12-wheel N.H. type elec. loco and Lionel hopper car, good condition.—Wm. Kenney, 90 Walworth St., Roslindale, Boston, Mass.

* * *

I AM building model road and want suggestions, also side view of Camelback loco. with 4 drivers.—Chas. Courtney, 674 Shady Drive E., Mt. Lebanon, Pittsburgh, Pa.

* * *

WANTED: O gage locos., cars, parts, track. Will trade watchmaker's outfit, mantel clocks, interesting old books, etc. Write for details.—L. D. Stallcup, 808 W. Lafayette St., Tampa, Florida.

* * *

I AM disposing of my standard equipment, almost new. Write for details.—Ernest Leo, 2451 Catherine Rd., Pasadena, Calif.

* * *

WANTED: O gage track and equipment. H. S. Mace, Ferrisburg, Vt.

I HAVE back copies of "Railroad Stories" (Dec. '29 to Dec. '34) to trade for Lionel O gage steam type loco. No. 258, 259 or 262, with or without tender; or for A.F. loco. 3308 or 3194; or Ives loco 1122. You may have your choice of the magazines or 2A Eastman Brownie camera. I also have 5 old-time Lionel standard gage, cast-iron, steam type drivers, 2¼ in. dia., to dispose of.

Model railroader in Mansfield, O., please write; I misplaced your address. Also would like to hear from fans in this vicinity who are turning their O gage tinplate lines into scale or semi-scale models.—Edward Hilland, 523 Royden St., Camden, N. J.

* * *

WANTED: Ives O gage Pullman No. 1695.—E. C. Atwater, 37 Maple Ave., Westbury, Long Island, N. Y.

* * *

40 PIECES straight O gage track needed; non-banking type preferred. I am also interested in simple systems of propulsion that work without motor in the locomotive; no gravity systems.—Harry L. Wynn (author of "Build an Engine Model for 40c"), 40 Sixth St., Lewisburg, Pa.

* * *

WANTED: Pair of distant control O gage Lionel switches, with or without non-derailing feature.—Oscar Cahn, 12 E. 97th St., N. Y. City.

* * *

I AIM to dispose of my standard model railroad equipment; write for details.—Wm. Person, 447 Central Ave., Orange, N. J.

* * *

I HAVE 3 prs. driving wheels, 1⅛ in. dia., mounted on axles, O gage; 2 prs. lead truck wheels on axles; pair rear truck wheels on axles and 4 prs. of steel mounted tender truck wheels; also cylinder block and cradle, main and side rods and pilot; all new. What am I offered for the lot?—John Gherna, Gen. Del., Rockvale, Colo.

* * *

I'D like to dispose of Lionel loco. No. 262, Ives loco. 1122, 3 Ives pass. coaches, Lionel 814 box car, Ives gondola 1717, track and transformer.—Chas. Johnston, 1442 W. 7th Ave., Corsicana, Tex.

* * *

WANTED: Lionel steel or Dorfan cast 2¼ in. trucks; also Lionel standard gage couplers, good condition.—R. K. Durham, 521 37th St., Union City, N. J.

* * *

I WISH to dispose of steam loco. No. 7, other equipment, all Lionel standard gage, good condition.—R. Stettler, 107 E. Elizabeth Ave., Bethlehem, Pa.

* * *

WHAT do you offer for A.F. engine No. 3112 in good condition with hand reverse, 3 pass. cars, 1 mail car, Pullman with light and ob. car with light; all have double trucks?—K. Sherer, 101 Pearl St., Richmond, Ind.

* * *

I WILL sell or trade 5 sets of wheels and Lionel O gage trucks with or without electric shoe, and 6 prs. wheels and axles for Lionel O gage Pullman, or what have you?—Chas. Teller, 272 Kingston Ave., Brooklyn, N. Y.

* * *

I WANT the smallest possible gasoline engine, less than 1 h.p.—Max Hayes, Rt. 10, Box 144, Fresno, Calif.

* * *

WHAT will you offer for $115 worth of used Lionel O gage equipment, good condition, incl. No. 260 loco., No. 252 loco., 2 prs. switches, pass. and frt. cars, station, a lot of track, signals, and Jefferson transformer.—A. A. Brown, 190 Stonewall Rd., Berkeley, Calif.

* * *

I WILL swap 4 blueprints of a 24 ft. whaleboat, with or without sails, for Lionel O gage equipment.—Orrin Merry, 65 Crystal Ave., New London, Conn.

* * *

I HAVE radio parts to swap for a model-makers' lathe in working order, pref. American Machine & Tool Co. make. Also mounted collection of 300 different stamps to trade for back issues of model magazines or scale drawings of Hudson type loco.—Ellis Jones, 719 Lincoln Ave., Jermyn, Pa.

* * *

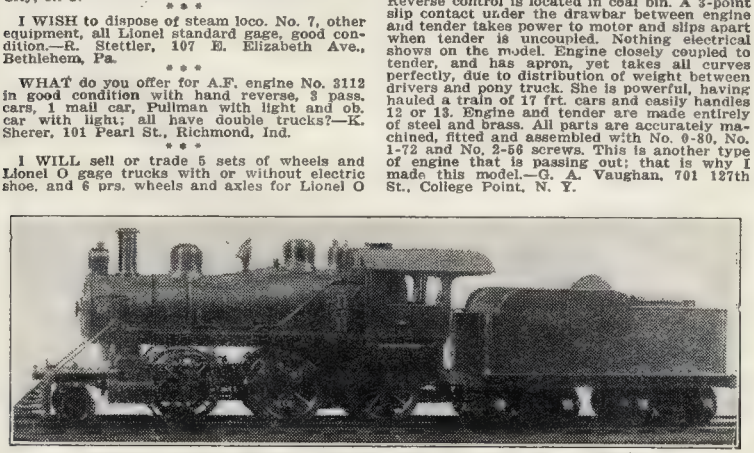
I WILL trade nearly 400 "cached" envelopes for O gage locos. or motors suitable for O gage, as I build my own equipment; or will pay cash.—R. Wegener, 30 Thompson St., Stapleton, Staten Is., N. Y.

* * *

PHOTO and description of diamond-stack 8-wheeler which I built appeared in Dec. '33 "Railroad Stories." I have since made another working model, a Mogul. (See photo.) She is about as complete as can be and runs on 2 1/8 in. track. Scale 1/32. She is 22 in. long, pilot to rear coupling, 3¾ in. wide and 5 in. high. Drivers are 1 31/32 in. dia. Engine weighs 11¼ lbs., 9½ being on drivers and 1¾ on pony truck. Tender 5½ lbs.

Pony truck is on 4 roller bearings on an arc allowing them to swing in on curves. Leading drivers are blind. Equalizing levers are used for drivers and a complete Stephenson link motion is installed. The whole engine is assembled with screws and can be entirely taken down. She is powered with a motor from an O gage engine of a standard make and located in firebox geared to rear drivers by 15 to 1 ratio. Side rods convey power to main and leading drivers.

The collector shoes are located between front and rear pair of tender wheels out of sight. Reverse control is located in coal bin. A 3-point slip contact under the drawbar between engine and tender takes power to motor and slips apart when tender is uncoupled. Nothing electrical shows on the model. Engine closely coupled to tender, and has apron, yet takes all curves perfectly, due to distribution of weight between drivers and pony truck. She is powerful, having hauled a train of 17 frt. cars and easily handles 12 or 13. Engine and tender are made entirely of steel and brass. All parts are accurately machined, fitted and assembled with No. 0-80, No. 1-72 and No. 2-56 screws. This is another type of engine that is passing out; that is why I made this model.—G. A. Vaughan, 701 127th St., College Point, N. Y.

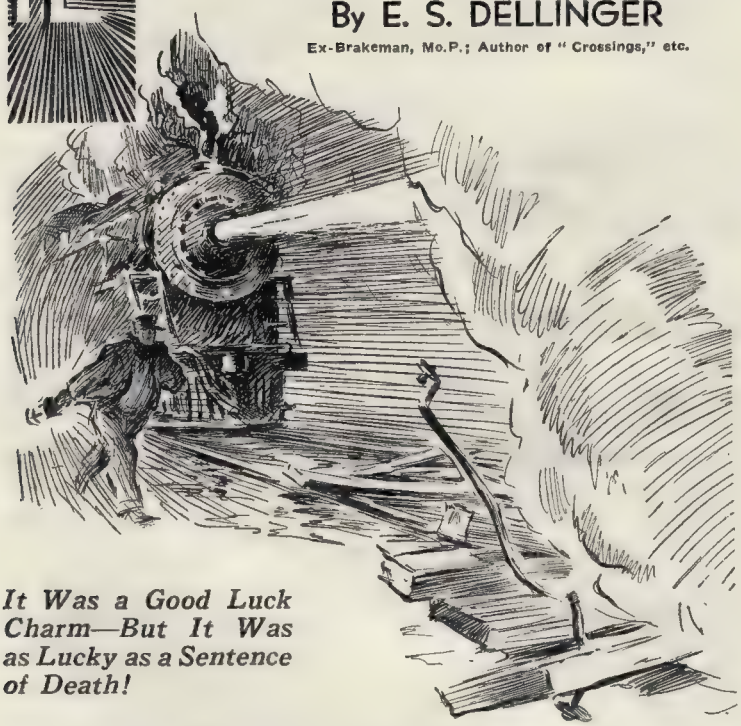


Beautiful Working Model of a Mogul, Built to Scale by G. A. Vaughan

# The Silver Cross

## By E. S. DELLINGER

Ex-Brakeman, Mo.P.; Author of "Crossings," etc.



***It Was a Good Luck Charm—But It Was as Lucky as a Sentence of Death!***

NUMBER 91 streaked westward through the desert midnight. Forty reefers—refrigerator cars — filled with hams and beef and bacon, chased the roaring decapod* which led them on through the Southwest beneath the desert stars.

Atop a reefer behind the cold barrage of beating cinders, the redheaded "Brick" Donley crouched against an upraised icebox cover. No common hobo, Brick. Two hundred thousand miles he had ridden as brakeman on another line.

The whistle blew for Monksburg. Brick left the shelter of his icebox cover, climbed to the running board and peered ahead where green and yellow switch lights twinkled through the darkness.

** Decapod—2-10-0 type locomotive. "Deca" (10) refers to the number of driving wheels.*

"I wonder," he muttered, looking around for detectives, "if there's any bulls in this cock-eyed burg to nab a man the minute he hits the cinders."

"There ees, my frien'."

The voice was beside him. Brick saw only a dark form, evidently a Mexican. A headblock light was gleaming with a green switch light below.

"You mean this main line switch?"

"*Sí* (yes). Firs' one on the right."

"*Gracias* (thanks)! I'll—"

"Have you the match to light the cigaretto?" A hand was thrust out toward him.

Brick switched on his silver lighter.

The Engineer Had Come with the Torch. In Its Light Brick Saw a Trembling Right Hand Rising

started. All night he had thought himself alone upon the reeling reefers. His unseen companion laughed, continued in the same soft voice:

"Three bulls work here nights. Eef you jump off queek by this first green light you mees heem all."

Brick Donley glanced sidewise and

The Mexican seized it in the right hand, held the cigarette in his left. In the instant that he lifted both hands simultaneously to his lips, Brick glimpsed the face above.

The face was intelligent, yet hard and cold as a bed of frozen lava. The mouth was set in a sinister smile. Eyes were balls of black fire. Beginning with the upper lid of the right, a white

scar ran out to lose itself in shadows at the temple. Brick was to remember that scar, in the months to come—*months already marked by the long lean finger of Fate!*

He watched the man walk toward the rear, saw his shadow against the distant markers as he swung from the roof and disappeared.

A moment longer Brick himself remained on top. The headblock light came nearer. He slipped down the end ladder as the ground ran by under the headlight of the yard goat coming down the change cabooses. Then, picking a spot, he landed.

While twenty reefers passed, the furloughed brakeman debated whether to spend the night in Monksburg or be on his way. If he went on No. 91 he would be in Tuscany by morning. From Tuscany he could ride a freight, hitch hike or pay a fare and be in Phoenix by tomorrow night.

He left the right-of-way, walked rapidly toward the street lights which marked the business district of the desert terminal. He found the all-night restaurant.

Two men were eating at the counter. Two lanterns on the floor and a trainbook on a hip identified them as conductor and brakeman on a freight.

The shack was slightly older than Brick. His companion, the conductor, was past middle age. They were not talking. One glance told Brick they were not the talking kind.

The conductor did not look in his direction. The brakeman eyed him with mild curiosity, evidently placed him as a "transient" and continued the meal. A platinum blonde brought a glass of water and patted a superior foot while he scanned the menu. When he ordered, she called out in singsong voice:

"Scramble a pair!"

Soon afterward the conductor left without a word. He flung coin and check upon the counter, fished a toothpick from the glass, and strode into the darkness. The brakeman swapped wisecracks with the blonde; then he, too, went out, leaving Brick alone with the waitress.

She turned on the radio. Outside, a cowboy was picking a guitar and singing: "In a lon-lee grrave, dug sixx by threee . . ." The girl listened to half the verse, muttered a "Damn!" and turned off the radio.

"Make yuh homesick, sister?" queried Brick sympathetically.

She flashed a look of appreciation.

"Yeah! Makes me wish I'd had sense enough to stay on the ranch in Texas, where folks do their eatin' in daytime an' save the night for square dancin'."

AFTER Brick finished eating he hurried up the dimly lighted street and turned right on the first crossing. The yards lay in darkness save for the glow of fixed signals and the shifting sparks of a few lanterns.

He stopped on the crossing to get his bearings. To the east the curving figure of the roundhouse roof was etched against the stars. To the west, marked by its platform light, lay the passenger station, with the division offices and the yards beyond.

This his railroad eye took in at a single glance. Another glance showed him a pair of markers burning red on Track 2, with a steaming engine on the west end of the track.

Not caring to risk encounter with railroad police against whom the mysterious Mexican had warned him, Brick hastily returned to the street, followed it west for eight blocks, and cut back into the yards.

Ducking across the main lines, he came up between two coal cars on Track 1. It was dark. He stopped to listen. Came the familiar *drip-drip-drip* of water from icebox drains on the reefers. They were on the next track. Knowledge of railroads had guided him to the train he had ridden in.

He thrust his red head cautiously around the end of a car to reconnoiter. A dozen car-lengths to the west was a lantern.

"Swellhead,"* he thought, "grabbin' seals."

He eased back between the cars to listen. Presently he heard heavy footsteps. *Rap-rap-rap-rap.* Then a pause while the conductor checked the number on a seal against the number in his train book. Another *rap-rap-rap-rap.* Another pause.

Nearer came the sound. Brick was listening, listening for the stealthy tread of a cinder dick. He strained his ears and eyes.

Did he hear another step? Was another man keeping step with the conductor? Or was it an echo? He could not determine.

The sound ceased when the conductor stopped, came again when he moved.

Brick would have liked to look out. He did not dare, for against the light of the conductor's lantern, his head would show as clearly as the dome on an oil tank.

The conductor stopped at the door of the reefer to the west, checked it, and started on. Brick heard cinders rattle, heard the heavy *rap-rap-rap-rap* and, like an echo, the fainter tapping.

The furloughed shack wished he had remained on the other side of the car. A moment later he was glad he had not done so.

On came the conductor. The lantern light was before him and behind. He passed the coupling within arm's reach. He stopped at the reefer door ahead, lifted the lantern, grasped the seal, read the number.

Another figure glided by the redhead's hiding place. He was dressed in black. He crouched on all fours. Lantern light flashed from metal. Brick came erect. *The prowler was drawing a gleaming dirk!*

Brick yelled: "Look out!"

Suddenly the dark figure stabbed at the conductor. Brick leaped and struck at the prowler.

The conductor whirled, dropping his book and pencil. With a startled "*Madre Dios!*" the would-be assassin went down. But before either Brick or the conductor had time to think, he had scrambled to his knees, darted under the train and disappeared.

THE conductor flashed his lantern in Brick's face. "What the hell's this?" he demanded.

Brick shrugged. "Looks like the seeds of a funeral tryin' to sprout."

"Yeah!" The skipper fumbled with a peculiar watch-charm dangling from a gold chain. It was a cross of silver with a tiny line of jade running through its arms.

"Things are sure comin' to a helluva pass in this section of the country," he rasped. "Railroad man has to have a bodyguard to keep some thug from stickin' a knife in his neck."

"Things ain't so nice for railroaders," Brick agreed. "I happen to be one myself."

"Oh! Do yuh?"

"Yeah," Brick went on. "Name's

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** Swellhead—conductor. Also called grabber, the brains, O. R. C., captain, skipper, big ox, king, smart Alec, brainless wonder, etc. See slang vocabulary in Oct., '32 "Railroad Stories."*

Donley. I hold rights brakin' and runnin' on the S.T. & S.F. out of Weller."

The conductor eyed him shrewdly. "When did the S.T. & S.F. start runnin' trains through Monksburg?"

Brick chuckled. "They didn't. We had a board cut up our way. I'm headin' west for the vegetable sheds."

The older man glanced at his watch, made a notation in the train book. Then he said:

"I'm Pat O'Malley."

"Glad to know—"

"The Pacific," O'Malley interrupted, "furnishes me with a caboose to ride in. Unless you'd rather ride the top of a reefer—"

"Thanks, Mr. O'Malley, if there's no danger of bulls and brass hats."*

"Bulls and brass hats don't interest themselves in my caboose or what I carry in it. If yuh want to ride, come on back."

Pat O'Malley went toward his caboose, checking seals. Brick followed silently. He kept looking back. An eight-inch dirk in a skilled hand is a strong magnet, especially in a dark trainyard at 1.00 A.M.

They entered the caboose by the front door. The first thing Brick saw was a ten-inch square of pine board hanging shoulder high on the closed rear door. It was painted like a target, and around the bull'seye were tiny slits.

The hind brakeman was on the bunk. He laid down his paper. His mouth was open.

Wide blue eyes were question marks growing bigger.

O'Malley jerked a thumb toward his guest and introduced:

"Larkin, this is Donley. He belongs with the S.T. & S.F. outa Weller. He's ridin' to Tuscany."

* *Brass hats—railroad officials.*

Larkin's hand was outstretched in brotherly greeting. "Glad to know you, Donley!"

"The pleasure's mutual." Brick gripped the extended hand.

O'Malley ignored them. He did not mention the attack. He trimmed his lantern wick, sharpened a pencil, took his train book and went up the blind side of the train.

THEN Larkin said: "I was wonderin', Donley, if you carry a magic powder or somethin'."

"No-o-o!" It was Brick's turn to be puzzled. "Why?"

"I've been on this car five years," the shack went on. "You're the first man that's ever been asked to ride the caboose. It's got me guessin'."

The redhead did not enlighten him. Together they discussed the railroad situation, lamented the fact that "the old railroad she ain't what she used to be."

Larkin took a long knife from his locker. Brick remembered that other knife he had seen that night. He wondered if there could be a connection. He decided not. This open-faced fellow was not the kind to plan or execute a murder.

The brakeman flipped the knife in a quick underhand toss. It arched through the air and buried its point in the target, thirty feet away. He glanced around for approval.

"You're pretty good," said Brick.

"I ought to be. I been practicin' for three years."

"So?"

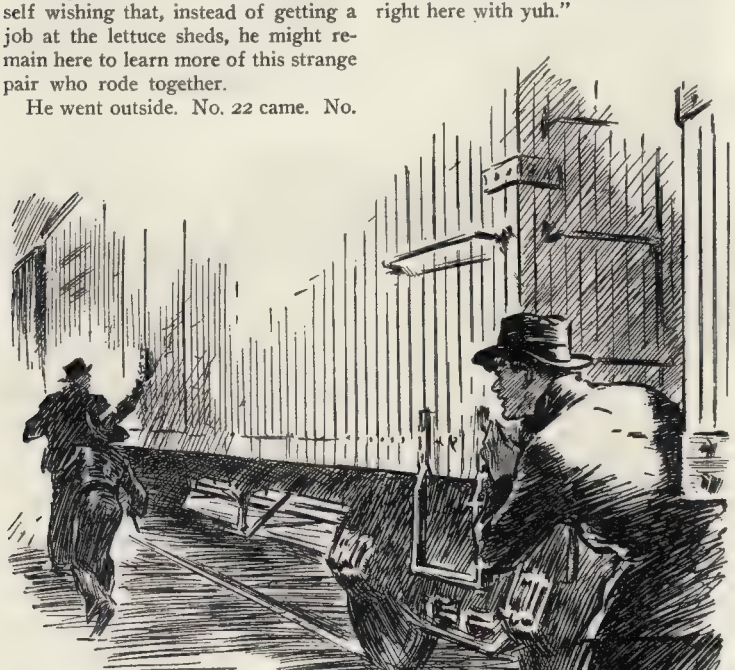
"Yah." Larkin recovered the knife and prepared for another throw. "Guy has to kill time on these night runs somehow."

Brick said: "Yes, he sure does."

Larkin hurled the knife.

Brick thought about Pat O'Malley. Something in the conductor's demeanor intrigued him. Maybe it was the utter contempt for danger. He caught himself wishing that, instead of getting a job at the lettuce sheds, he might remain here to learn more of this strange pair who rode together.

He went outside. No. 22 came. No. 91 whistled off. Larkin appeared on the rear platform and swung a highball. The slack went out.



Brick Yelled: "Look Out!"

Brick caught the rear. He and Larkin rode the platform until Pat, having locked the main line switch, swung up beside them. The conductor went into the caboose, arranged blanks and carbon sheets, and began work on reports.

Brick and Larkin climbed to the cupola. Forty miles rolled eastward. Reports were done. Pat came to join them. Brick moved over. O'Malley laid a detaining hand on his knee.

"Just keep your seat, boy. I'll set right here with yuh."

Pat climbed upon the cushion, loaded the clay pipe. Larkin kept looking puzzled. They rode in silence for many miles. Pat knocked the ash from the pipe.

"So yuh goin' to the Salt River to pack lettuce, hungh?" he queried.

"Yeah. Gonna try it."

"Kind of a hard graft, I'm told."

"Ain't so hot, but it beats nothin'."

"You've tried it before?" This was the brakeman's question.

"Yeah. Second season for me."

Larkin blew smoke rings. "Yuh know, Donley," he said, "if I was out of a job, I believe I'd rather do news-butchin'* than lettuce packin'. Ever try it?"

"No-o-o. Never thought of it."

"Ain't so bad. Gives a guy a place to sleep an' a bite to eat; an' some of these runs make good money."

"It is about as near railroadin' as anything a fellow can get into," admitted Brick, who had a keen love for the iron trail.

"Why don't yuh give it a whirl?"

"I'll think it over," said Brick.

Pat was playing with the silver cross. "Why don't you?" he queried. "The Fredrickson Company has the concession on both the Pacific and the P. & A. Their headquarters is in Tuscany. It won't take you thirty minutes in the mornin' to find out about it."

"Pretty heavy bond required, isn't there?" the furloughed shack wanted to know.

"Not much," was the reply. "Twenty dollars, maybe. If yuh happened to need a little, I might—"

"Thanks, Mr. O'Malley! If it's no more than that, I guess I can manage."

BRICK did not go to Salt River. Instead, he went with Pat to Mandy Grogan's boarding-house, and met "the gang" at breakfast. Besides Larkin and Pat, there were two brakemen and a fireman. There was Orville Anderson, trainmaster's clerk. And there was "Dalena" to think about.

Magdalena was Pat's nineteen-year-old daughter. Brick, wise to the Southwest, knew she was not *all* Irish. That jet hair framing a face of milky whiteness, those eyes glistening like desert stars, those features finely chiseled and almost Moorish, surely came from Spanish blood.

Mrs. Grogan seated them side by side. The coquettish hand she offered at her father's blunt introduction sent a tingling to Brick's toes. He glanced around quickly and caught Jack Larkin watching them. Jack did not look pleased.

After breakfast the redhead went with Pat to the Fredrickson offices. Harry Stimson, local manager of the news butch outfit, with a scant half-dozen questions hired him on the conductor's recommendation.

"You may report at 5.10 this afternoon, Donley," Stimson instructed. "I'll send you east on Number Twenty-two. You can double back on Twenty-one. This will put you out with two different men and give you the hang of things. After tonight you'll be on your own."

Briefly the manager outlined their system of checking merchandise, gave instructions as to reports and regulations, and wished him luck and a pleasant good-morning.

Brick was not certain he would like this new job. He had always shunned the starch and polish of passenger service, preferring the rough and tumble freedom of freight.

O'Malley persuaded him to room at Mrs. Grogan's. That lady was Pat's sister. She was a motherly widow—as boarding-house keepers should be—plump and on the sunny side of fifty. Though Pat did not mention Magdalena, Mrs. Grogan soon did.

** A news butcher is a train vendor of magazines, candy, fruit, etc.*

On the morning he came to pay his rent, the two ladies were in the parlor. Magdalena was at the piano. She was smartly dressed in black. From her ears dangled silver bobs whose design was the swastika cross of silver lined with jade.

The elder woman threw a significant glance. "Perhaps, Mr. Donley," she said jokingly, "I should warrn ye agin' the wiles of me pretty niece."

"I'm afraid, Mrs. Grogan," Brick responded gallantly, "your warning comes too late."

Dalena blushed. "Don't mind her, Mr. Donley. Folks would think I was a regular man-killer."

Mrs. Grogan chuckled. Later, Brick went to his room and to bed with the feeling that Pat O'Malley and his sister were deliberately dangling the girl before him, a rank stranger. He wondered why.

Shrewdly he surmised it was not because they wanted him in the family, but because they wanted to keep someone else out. And that someone, he guessed, was Jack Larkin. For a while he lay awake thinking about the matter, and his decision was:

"If that cutie wants to play railroad on my right-of-way, she can have a clear track an' no slow orders."

BRICK never mentioned the circumstances of his first meeting with Pat O'Malley; and because folks speculated about it, he supposed Pat had not done so. It was not long until he wished he had.

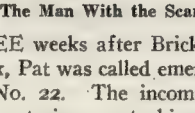
At first he did not like the news butch job. He felt a trifle self-conscious as he went down the aisles calling:

"Candy—chewing gum—peanuts! Like an apple for the baby, lady? Only a nickel!"

But the feel of rolling wheels was compensation. He was still railroading, after a fashion. Soon he came to feel the challenge of increased sales, the challenge of the hard customer who sits in stony silence, refusing to be sold. But more than all else he felt the keen pleasure of coming home.

Always when he came during the day, Dalena O'Malley met him with a smile and a simple greeting. Sometimes she went with him to a picture show, as she went with Orville Anderson and the two brakemen.

With Larkin she never left the house alone. Often Brick would see them exchange meaning glances, drift out separately and after an interval return by different doors. Where and how they spent those intervals, he never knew.



## The Man With the Scar

THREE weeks after Brick went to work, Pat was called emergency to handle No. 22. The incoming crew turned the train over to his men, and he and Brick went into the smoker.

Pat, as conductor, took the two front seats on the right side for his *office*. Brick, as news butcher, appropriated the two across the aisle for his *shop*. He set his trunk between the seats and spread his merchandise — candies, chewing gum, fruits, cigarettes, tobacco, magazines, and a dozen paper-backed books printed in Spanish.

When the train started, Pat came in through the front door and unlocked the washrooms. Then he began taking up tickets.

Brick decided to work the train first with candy, nuts, and gum. He started

when Pat was halfway through the forward compartment of the smoker.

Practically every seat in this compartment was filled with Mexicans. Most of them were peons from below the border or native ranchers and herders. Some joked in their native tongue as the redhead passed. Others ignored him. A few eyed his wares with longing.

When he had almost overtaken the conductor, he saw a man of different type, dressed in black broadcloth, worn but neatly pressed. Keen eyes darted over the coach. The lean face was alert.

Pat stopped at the seat ahead of him. The stranger jerked his head to the left. On the right side of the face was a white-edged scar running down from the eyelid. Brick tried to recall that scar. It was certainly familiar.

Then he remembered. It was the scar—and the face—he had seen atop the reefer the night an unknown Mexican had told him how to get by the three bulls in the Monksburg yard!

Brick smiled in recognition. His smile quickly disappeared. The Mexican was looking at Pat O'Malley's broad bosom. Those keen eyes were fixed on the silver cross. In them was a look of deadly menace.

Pat punched a pass and called: "Tickets, please!" The scarred one thrust his pasteboard toward the conductor, quickly turned to stare from the window.

Under pretense of having forgotten something, Brick returned to his spread. When he came back, the Mexican was looking away.

Two things more Brick noted—the right hand, gripping the seat arm, was slim and white. And on its fifth finger was a ring whose emblem was a silver cross, *a swastika cross inlaid with jade!*

Except for size, it was an exact replica of the cross which Pat O'Malley was wearing for a charm—the cross at which the scarred man had been looking—*and the two crosses which adorned the lovely ears of Pat O'Malley's daughter!*

Brick remained behind Pat until he had worked the smoker.

As the conductor started into the chair car, the news butch called: "Mr. O'Malley!"

"Well?" O'Malley pivoted.

"Mr. O'Malley, did you notice that Mex up ahead, the one with the scar on his face?"

"Did I notice him?"

Something in Pat's tone made Brick feel like a man who has opened the neighbor's back door without knocking and caught the neighbor kissing the cook.

"Yes. He looked as if he'd like to stick a knife in your gizzard, and—"

Brick hushed. Pat was toying with the silver cross. He did not look at Brick.

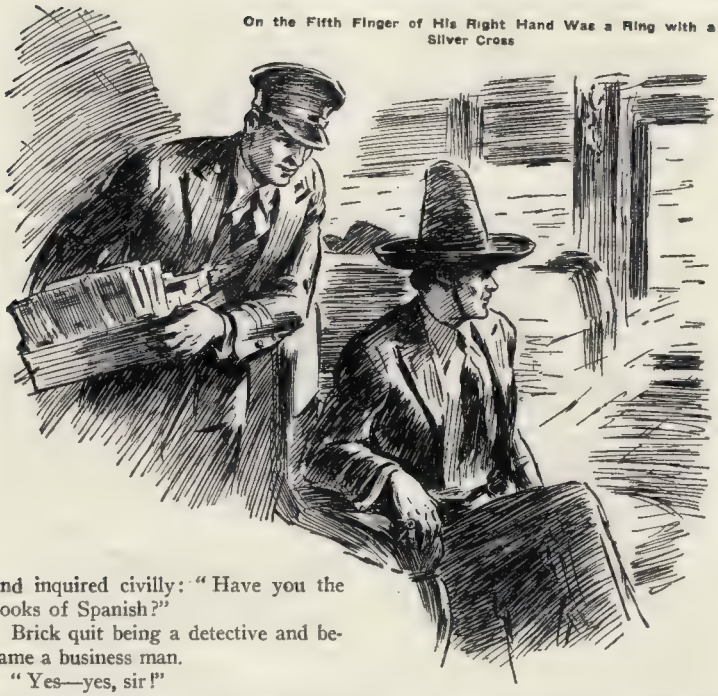
"Donley," he said curtly. "You've done a right good job keepin' your mouth shut and tendin' to your own damn business since you've been here. Don't spoil it!"

PAT went into the chair car and punched tickets. Brick went down the aisle calling: "Chewing gum! Peanuts! Salted peanuts! Candy! Nice fresh chocolates!"

He worked the Pullmans and came back. Pat was in the rear of the chair car. Pat did not look up. In the smoker, Scarface was toying with the ring. He followed Brick up the aisle.

Brick felt a tickling at his spine. He remembered a night when a man had stalked Pat O'Malley.

The fellow looked over his spread



On the Fifth Finger of His Right Hand Was a Ring with a Silver Cross

and inquired civilly: "Have you the books of Spanish?"

Brick quit being a detective and became a business man.

"Yes—yes, sir!"

He picked up the stock of books. The customer selected one from the center.

"*El Diablo y el Toreador,*" he read aloud.

"*The Devil and the Bull-Fighter,*" translated Brick.

"You spik the Spanish? Yes?"

"Nope. Not much."

"Ees one beaut-tiful language, *señor.*"

Brick did not deny it. The customer bought the volume and returned to his seat.

Agua Frio is sixty miles east of Tuscany. It is a water tank, a pump shed housing an old locomotive boiler, and a dwelling made by setting two box cars like an L. Its sole inhabitant was Juan Baca, an old Mexican pumper.

Brick did not know it then, but the names of Juan Baca and the man with the scar were written on the same page of the Book of Fate!

The porter came through the train calling: "Agua Frio! Agua Frio!" The man with the scar closed his book. Taking up his check the porter said again: "Agua Frio, sir!"

Brick was curious. Passengers seldom left or boarded the train at this desert station. He followed Pat, the man with the scar, and the porter, to the platform. Pat opened the vestibule. The porter set a stool on the grade. The passenger stepped over the stool and disappeared in the shadows.

TWO days later came a row at the Grogan boarding-house. What happened Brick Donley never positively knew. Pat was two hundred pounds of frozen fury. Mrs. Grogan was a cyclone. Magdalena was a flood.

One result was that Jack Larkin moved to another boarding-place. Brick saw little of him from that time on.

As soon as Jack had gone Brick noticed a change in the girl's demeanor. She seldom smiled. She would sit by the hour playing softly on the piano, playing things which fill the heart with sadness.

Brick longed to comfort her in the lover's way. He restrained his impulse.

Pat, too, seemed worried. He had been morose before. Now he acted as if he had turned at bay against a world of enemies.

Once, in the twilight, Brick came into the parlor. Father and daughter were together. She wore the silver earrings, whose ornaments were swastika crosses lined with jade. Pat was toying with one of them.

Brick heard her ask: "When are you going to tell me the story of these trinkets, daddy?"

"Some day, Dollie," said Pat.

"You've been promising to tell me 'some day' ever since I can remember." Dalena's rich voice was petulant.

"I'm going to. Maybe I ought—"

Brick cleared his throat, and started out. Dalena sprang up and followed him. He had noticed of late that she clung to him almost like a shadow. They went to the picture show together that night.

And the NEXT night—

BETWEEN Pass City and Tuscany the tracks of the Pacific and the P. & A. roughly parallel each other. In places they are miles apart. In others they are so close together that rival enginemen can shake hands from cab windows.

Heading east from Tuscany, the Pacific crosses the P. & A. and swings north into the sand hills. The rival lines approach each other again at Agua Frio. Each has a water tank there, but their tracks are two hundred yards apart. A mile east of Agua Frio, however, they swing in close and run side by side for forty of the sixty miles into Monksburg.

Jack Larkin was still braking behind for Pat O'Malley. They were called for an orange train east out of Tuscany at 9.40. Brick had gone to Pass City the previous night on No. 10. He left Pass City that night on No. 17 at 9.55.

At Monksburg, Conductor Rader of No. 17 came into the coach. He was pawing the air.

"Of all the nut-headed stunts I ever heard of," he raved, "this is the limit!"

"What's happened now?" Brick picked up a basket of fruit.

"Read that, will yuh?" The conductor thrust a piece of white tissue toward the news butch, who read:

**Order Number 54. To C & E, Number 17 at Monksburg. Number 17 eng 5609 take siding meet exa 4104 east at Bannister.**

"Puttin' us in the hole for a freight, huh?" Brick commented.

"Putting us in the hole for a damned orange drag!" stormed the conductor. "If that doesn't beat hell! Men work a lifetime getting seniority to run a train that's got some rights, and then get sidetracked for . . ."

Brick chuckled. He went down the aisle calling: "Oranges! Apples! Nice juicy . . ."

The Limited took siding at Bannister, twenty-nine miles west of Monks-

burg. Five minutes after they had cleared, a light showed over the grade far to the west. The crew aired their grievance on the cinders while waiting for their meet with Pat O'Malley's orange train. Brick followed them.

They stalked along the tracks. The light divided, became two lights side by side.

"Do they run engines with twin headlights on this pike?" queried Brick.

"Naw. That's a drag on the P. & A.," Rader answered sourly. "Probably another orange train racing with our man. I hope they beat him!"

The earth trembled. The porter went to open the switch. Headlights drew nearer. The Pacific train was a dozen car-lengths in the lead. Brick and the conductor took refuge between the smoker and chair car.

Past them zoomed the engine. Reefers rocked and reeled. Rader was on the platform. Brick was on the top step.

The marker came on. Brick straightened, peered toward the cupola. It was empty. He peered at the oblongs which were windows, opened his mouth to let out a greeting yell.

As the window went by, he glimpsed *something*—something which froze the unuttered cry in his throat!

It was only a blurred flash, but one which would remain with him to his dying day.

Over the desk where, night after night, Pat O'Malley sat to make out reports, he saw a hand descending. In the hand was a knife—*a gleaming knife!*

Brick heard Conductor Rader gasp, felt a hand grip his shoulder.

"Did—did you see that?" screamed the conductor.

"Yeah, I saw it."

"What do yuh make of it?"

"*Murder!*"

Rader hit the cinders. He was swinging a washout stop sign. But either the engineer on the 4104 did not see the signal or reckoned it was not meant for him. And the orange train roared on.

RADER reported to Monksburg. Monksburg organized a posse. The posse flagged the extra a mile from the yard limit, and searched it. Car lights were focussed on both sides, so no one could leave it.

In the caboose they found Jack Larkin, his nerve shattered. The late Patrick O'Malley was lying in a pool of clotted blood!

A bull laid a heavy hand on Larkin's shaking shoulder. "What do you know about this deal, brakie?"

Larkin gasped:

"I—I don't know anything."

"Where was you when it happened?"

"I went out to look about a hot box on the train comin' up Bellevue. I didn't get back to the caboose till a few minutes ago. He was—like you see him. Surely you don't think I—"

"Hold him!" ordered the chief. "We'll see what else we can round up."

They rounded up nothing. No one was on the train but the crew, and the rest of them had been on the engine. They found Jack's knife in the caboose. They found his target.

"Say!" bellowed the chief. "Ain't this our knife-throwin' brakeman?"

"Sure!"

"*He's* the bird we're lookin' for."

"Yeah. Him an' O'Malley's been at outs for months."

They held Larkin for the inquest.

Brick did not doubt but that the murderer was the man whose attack he had

forestalled weeks ago. He never dreamed of their accusing Larkin.

At 5.40 they reached Tuscany. Brick looked after his trunk and went to Grogan's. Neighbors were whispering. He ignored their whisperings. Magdalena and Mrs. Grogan were leaving for Monksburg by auto. Knowing that Jack Larkin was there, the news butcher did not even consider going with them.

He went to bed. After two hours of fitful sleep, he got up and drifted over to the yard office. Orville Anderson, the trainmaster's clerk, and Rader were talking. He heard the conductor say: "That's sure hell about Jack Larkin, isn't it?"

Brick thought, "Jack Larkin! Did he get Jack, too?"

Anderson said: "I'm not surprised."

Rader retorted: "I sure am. I never would have thought it of the kid. He's always seemed kind of harmless. And there was Dalena—"

"That was it," the clerk interrupted. "Pat and Jack have been having merry hell over Dalena. Jack's been making love to her, and old Pat thought she was too young to marry."

"Sure looks bad for the boy."

"He'll sit in the hot seat for it."

That ended the conversation.

BRICK confronted Rader. "What's this I hear about Larkin?" he queried.

"They think Larkin killed O'Malley."

"Why, they're nuts!" gasped Brick. "Larkin never no more done that than—"

"Maybe you know who did?" suggested Anderson.

"Yeah, maybe you could see—"

"I couldn't see any more than you did, Rader. Not as much, because you was higher an' had a better view of the inside of that caboose. But—"

"Know something you haven't told, Donley?" Rader asked searchingly.

"You're damn right I do!"

No. 12 was due out. Porter and conductor were calling their "Bo-oa-ard!" Brick darted into the Fredrickson office. The manager looked up in surprise.

"What is it, Donley?"

Brick explained briefly:

"It's that O'Malley case, Mr. Stimson. I've got to go to Monksburg on Number Twelve."

Brick darted to the platform and caught the observation. He knew little of legal technicalities. He assumed that when he told what he knew, the law would release Larkin and begin search for the murderer. He began taking lessons shortly.

In Monksburg the inquest was set for 1.30. He tried to see Jack Larkin.

"Busy!" the deputy informed him curtly. "Can't be disturbed."

The deputy did not tell Brick that nine men were grilling Larkin in the sweat chamber, trying to wring a confession from him before the inquest. The news butcher returned at 1.00, only to be met with the same reply.

He went to the hotel. Magdalena and Mrs. Grogan had come into the lobby. At sight of Brick the daughter burst out sobbing.

"Don't take it so hard, little girl." He laid a sympathetic arm about her shoulder. "You can't do him any good. It's something we all must—"

"Jack didn't do it!" she blubbered.

"Of course he didn't," earnestly.

The sobbing ceased. "Don't you think so?"

"I most certainly don't."

"Everybody else seems to," she retorted spitefully.

Mrs. Grogan laid a hand on Magdalena's arm. "The taxi's here, darling. Let's go."

**The Coroner's Inquest**

BRICK went to the inquest. The coroner's office was crowded, and the proceedings were under way. The district attorney was there.

Witnesses were called. Facts were established. Patrick Langley O'Malley, a Pacific Railway conductor, had died suddenly in his caboose between the hours of 11.58 P.M. and 12.42 A.M. Death was due to a wound from a knife or other sharp instrument.

Brick kept wondering how he could get into the inquest. About the time they recalled Larkin, he sought a deputy.

"I know something in this case," he asserted.

"Name, please!"

"B. F. Donley. I was news agent on Number Seventeen last night. I saw—"

"Oh, yes! Just a moment."

The deputy talked to the coroner. The coroner talked to the prosecutor. The prosecutor nodded. The deputy came back to Brick.

"All right, Mr. Donley. We'll use you when we finish with the next witness."

Larkin told about going on the train to look for hot boxes. He told how he had returned to the caboose and found Pat. A knife was produced. It was clean and cold and razor sharp.

"Is this the knife which killed him, sir?" queried the district attorney.

"No—I—that is, I don't know," stammered the flustered brakeman.

"Isn't this your knife, Mr. Larkin?"

"Yes, sir!"

"Where was it when you, ah, returned to the caboose?"

"It was—I didn't see it. I had it in the locker."

Jack had gone entirely to pieces. He looked as if he had been sick for a month.

"Isn't it a fact, Mr. Larkin, that you have been carrying this knife on your caboose?"

"I've been—been practicing with it."

"Practicing?"

"Yes, sir. You know, throwing!"

"How long?"

"About three years."

"Pretty good at *throwing,* aren't you?"

"Yes, sir!"

"Did you throw it at the deceased or stab him with it?"

"I—I—didn't do it."

"That's all."

Jack returned to his seat. The prosecutor smiled knowingly, and called Mr. B. F. Donley.

"Mr. Donley" answered questions. His age? His occupation? Had he known the deceased? How long? Had he known Mr. Larkin? How long?

Evidently the prosecutor was little interested in Brick's testimony. "You may now tell us what you know concerning the death of the deceased."

BRIEFLY Brick described what he had seen through the caboose window as the orange train had passed No. 17 in siding at Bannister.

"I don't think," he continued, "that Mr. Larkin had anything to do—"

"Please confine your testimony to facts, Mr. Donley. The inquest is not interested in your opinion."

"Well—" Brick scarcely knew whether to go on or quit. "About two

months ago I rode a freight train into Monksburg and intended to ride it out—"

"Does this ride have any bearing on the case?"

"It might have a lot." Brick's red-hot temper was flaming. "I was waitin' to catch a freight out and O'Malley came by grabbin' seals. Another man was behind him. The other man had a knife. He jumped on Pat and tried to stab him with it. I knocked him down. He got up and got away. I believe—"

A spectator cackled. Another croaked "Horsefeathers!"

The prosecutor twiddled his thumbs. "Is that all, Mr. Donley?"

"Yes, sir, except that—"

"Why did you not bring this to light sooner?"

"Mr. O'Malley did not mention it. I thought—"

"That's all. Witness excused."

Brick was furious. He knew his testimony had been inadequate. Contempt and unbelief beat back from scowling faces. The jury, the coroner, the crowd thought he had framed a lie to try to clear Larkin.

So he was not surprised when the verdict came: "The deceased Patrick Langley O'Malley met his death as a result of a wound inflicted by a knife or other sharp instrument in the hands of a person assumed to be John Jacob Larkin."

On the strength of this finding, Jack was held for murder. Deputies hustled him to the sweat chamber under the stone courthouse. Brick tried to see him but was not admitted.

THE inquest was held on a Saturday afternoon. Brick returned to Tuscany. He desired to talk with Magdalena before taking action.

Funeral service had been set for Monday. Knowing that he could do nothing on Sunday, the news butcher worked that night and the next. He returned to Tuscany on No. 17 and gave Mr. Rader details of the first attack upon O'Malley.

The conductor listened skeptically. The press played up the circumstantial evidence. In the minds of the public, Larkin stood convicted. Rader had read the papers.

Trials are expensive. If a case can be cinched with a confession it saves money. And it strengthens official reputations.

An hour after Jack was arrested, the officers, convinced he was guilty, "turned on the heat." From early Saturday morning, until the hour of the inquest, nine of them *questioned* him in relays.

One would stand at either hand, one behind him. They would shake grisly reminders under his eyes—his knife, Pat's bloody jumper, Magdalena's picture. They would thunder questions in terrifying tones, trying to break his nerve.

They told him that they knew he'd done it, and the best thing for him was full confession. It would make things easier if only he would tell the truth. Then they would wheedle. Poor little Magdalena waiting at home for a daddy who would never return.

"We know you did it, son. Why don't you come clean and give us the details, so we can end the ordeal?"

Jack wept, sweated, swore. They took him to the inquest. He talked to no one. They returned him to his cell. Throughout Saturday night and Sunday, their "questioning" continued.

Sunday night at midnight, they left him alone. The floor was hard. The cell was a dungeon. Jack had only one blanket between him and concrete. He

tossed restlessly until the morning.

His tormenters came again. All through the day they put clever questions, promising food and quiet "just as soon as you tell the truth."

MRS. GROGAN was in the parlor when Brick came in from the funeral.

"It's ashamed av ye I am, Mr. Donley," she raved. "Here Ay've been thinkin' ye was me friend. An' ye turrn right around an' go hellupin out that fiend which murdered me poor brither in cauld blood."

"But Jack didn't kill him."

"No, he didn't," chimed in Magdalena.

"There ye gao, the baoth of ye. Traitors to yer aown flish and blude."

"We're not traitors," Magdalena said stoutly. "Didn't you hear what Brick told the inquest?"

"Yis, an' av all the patched-up falsehoods—"

"It wasn't a falsehood," denied Brick. "It's the God's truth. That's why Pat brought me here to Tuscany and got me a job."

"Jack and I wondered about that," the girl remarked.

"I think," said Brick, "it has something to do with the silver cross he wore—"

Magdalena threw her hands to her head. "The silver cross! Say—"

She hurriedly opened her father's grip. It contained the articles taken from his body. His wallet with the five-dollar bill and the two ones, with lodge receipt and passes. His pocket knife. The pencil and its holder. His watch and chain.

She lifted the watch and let the chain dangle. *The silver cross was gone!*

Brick and Magdalena went to Monksburg. Jack could "not be seen." They hired James P. Warren, a widely known lawyer.

Warren went to the courthouse. Brick and Magdalena went with him. They met the district attorney. His face was beaming.

"So you're taking the Larkin case, eh, Warren?" he chortled.

Warren nodded gravely.

"Well, you're a little late getting to your man. He's just signed a confession, and everything's fixed."

Two days later Warren said to Brick Donley: "When I took the case I was convinced Larkin was guilty. After talking with him, I am now convinced he is innocent. It will be *hard* to prove. That forced confession will be difficult to get by a jury."

"What's your program?" Brick inquired.

The lawyer scratched his chin.

"I don't know. We have much to overcome. First is their contention that the only person not accounted for on the train is Larkin. We can refute that if we can prove that a supposed murderer could have left it while in motion."

"That's one thing which puzzles me," said Brick.

"If we refute that argument, we weaken their case. If we establish a connection between that missing cross and a motive for murder, we weaken it still more. If we find the man with the ring, and he has the cross on him, that would about clear Larkin. Unless we can—" Warren shrugged significantly.

"The electric chair?"

"Such things have happened, my dear Donley."

BRICK returned disconsolately to Magdalena and told her what Warren had said, declared he was going to do all he could.

"I want to help you," she asserted.

"All right. There's things I'd like to know. If my questions become too personal—"

"*Nothing* is too personal, Brick, with Jack's life at stake."

"You love him—that much?"

"Yes, I—I love him!" The black eyes filled.

Brick laid a hand on the trembling arm. "Just how strong was the trouble between him and—and Pat?"

"I don't know. Daddy objected to my going with him. Said I was too young to marry. Told me Jack was not ready to settle down yet. He and Auntie tried to break up our engagement. I don't think either of them disliked Jack particularly, except that we went right on in spite of them."

Brick nodded. "Your mother was Spanish, wasn't she?"

"Mexican," the girl answered proudly.

"What was her maiden name?"

"I don't know. Daddy used to railroad in Mexico," Magdalena explained. "They met while he was there. He came here after she died."

"Do you know where he worked?"

"No."

"Does your aunt?"

"I doubt it. Daddy was out of touch with all of them for years before she came to Tuscany to keep house for him."

"Is there anyone here who knew him while he was down there?"

"Not so far as I know."

"Do you know anything about the silver cross?"

The girl shook her head. "Nothing."

"You have a pair of ear-rings of the same design, haven't you?"

"Yes. You wish to see them?"

"No. Do you know anything of their history?"

"Only that they belonged to my mother."

Brick ran slim fingers through his red pompadour. "Do you suppose that cross could have belonged to a set of which the ear-rings were a part?"

Dalena thought a moment.

"It might have. They're being of the same design would indicate it."

"Might there not have been four pieces to the set? Say a sort of locket, two ear ornaments, and a finger ring?"

"We have no ring."

"I saw one recently," said Brick.

"Did you? Where?"

"A Mexican—an upper-class Mexican, I'd say—was wearing it."

"That's strange!"

"Yes, and the strangest thing about it is that he was in Monksburg the night of the first attempt on your father's life, and also in Agua Frio less than four days before—before—"

"You think—"

"I'm certain of it!" the news butcher insisted. "If we could contact your father's past, I believe we could uncover something which might help Larkin."

JACK'S trial was set for September. It was now nearing the end of July. Brick went to Agua Frio to see old Juan Baca, the pumper. Juan came out of the L-shaped shanty. Brick did not talk much Spanish. Juan did not talk much English.

They conversed brokenly . . . The desert. The weather. The pumping plant. There was a closed door at the end of the shanty. Brick kept wondering what was behind it. Every time he moved toward it, old Juan skillfully steered him away.

Juan showed him the ancient locomotive boiler which made steam for the plant. Brick thought: "If the water

ever gets low on the crown sheet of that pile of junk, it's going to send a Mex and a water tank to kingdom come."

Using English, Spanish, and two hands, Brick asked, "Who was the man with the scar who got off Number Twenty-one here a few nights ago?"

"Scar—scar—"

"*Sí—sí.* Scar!" Brick drew a finger from his eye to his forehead.

The pumper's eyes were perfectly blank. He professed total inability to understand what the news butcher was saying.

"No *sabe* scar! No *sabe!*"

Noon came. The pumper did not eat. Brick sat on the bench beside the closed door. He could hear movements inside, the squeak of a stealthy foot moving over boards. Finally he pointed to the door, and demanded sternly what was inside.

Juan answered readily.

"*Mis perros! Dos perros, muy males.*" (My two dogs! Very bad dogs!) "Bite!" The old man snapped toothless jaws and grinned.

Brick saw a long peculiar ridge under the waistband of his overalls, such a ridge as a concealed knife might make. He considered either brazenly opening that door or forcing the pumper to do so.

He did neither. He had come here to scout. He had no weapon. If the murderer were there, it would mean trouble. Two men, two dogs, two knives against a pair of bare hands! Suicide.

A FREIGHT came from the west. Brick caught the caboose. He waved farewell to the pumper, and started toward Monksburg.

He did not go far. At Bellevue, he left the train and called Attorney Warren. He asked the lawyer to send officers with a search warrant. He caught the first train west, and unloaded at the arroyo beyond the tank. He waited here until the officers came.

He was away two hours. The officers came at 4.00. They were not energetic in their search. Brick urged them on. They asked Juan to open the door where the dogs were. He did it willingly, but with the air of injured innocence.

The room was eight by twelve feet. It contained two vicious black mongrels and an old wooden bunk with four army blankets. The only suspicious article they found was a worn broadcloth coat. Though it was many sizes too large for him, old Juan claimed it as his.

The officers apologized profusely. They glowered at Brick.

"As a detective," one sneered, "you make a right good news butcher."

Crestfallen and sore, Brick returned to Tuscany. Whether his man had been in the shanty, he did not know. If so, his own bungling had permitted the fellow to escape and now thoroughly on his guard, would be difficult to locate.

MAGDALENA continued to worry over Jack Larkin. Every day she grew thinner, and her dark eyes had a haunted look. Noticing it, Mrs. Grogan complained to Brick:

"Me niece is grievin' hersel' to death aover the man that murdered her fayther."

"Mr. Larkin didn't do it," protested the news butcher loyally.

"Ye're a funny guy, Mr. Donley," said Mrs. Grogan. "Here ye are heels aover head in love with the girrul yerself, an' still wurrukin' yer head aoff helpin' the rapscallion Larkin so's he

kin take her away from ye. Ye yang folks are funny things."

"Don't, Mrs. Grogan. Please!"

"Ay won't!" Mrs. Grogan was chuckling shrewdly now. "Maybe ye're not so funny afther all, Mr. Donley. If ye keep tryin' to the end, an' thin fail, why, the yang lady—"

Brick had thought of that. It only made him the more determined to do something. *Anything!* He tried to figure some way of tracing Pat's life below the border. He sent inquiries to railway offices. He found no trace of a man named O'Malley who fitted Pat's description. Had O'Malley been there under a flag? If so, what flag?

He tried to figure how a man could have left that orange train at fifty miles an hour with assurance of safety. It seemed impossible. Then—

HE was on No. 12. They stopped at Agua Frio tank. The P. & A. tank was two hundred yards north of it. A fruit train on the P. & A. was pulling out. He heard the engineer give two ringing blasts of his whistle. It sounded like a challenge.

The porter chuckled. "We all guine have some fun this mawnin', butch."

"Yeah? How so?"

"'At P. & A. guy say he wanna run a race wid Bat Higgins an' ouah streak uh varnish."

"He's sure talkin' to the right man."

Brick saw the P. & A. hogger thumb his nose. Bat was oiling around. Bat shouted something to the fireman. The fireman quit on two thirds of a tank. Bat called in his flag, and by the way the ground rocked under that iron horse, Brick knew the race was on.

He worked the coaches, keeping an eye out for the fun. When they went through Bellevue, No. 12 was doing sixty. The P. & A. orange train was throwing sparks to the sky, while smoke from rival stacks obscured the sun.

Passengers had come alive to the fact that a race was on. They crowded to the south side of the train, watching. Bat Higgins with high wheels and fourteen coaches, overhauled the P. & A. Mike with forty reefers. Inch by inch, he dragged his coaches past the careening caboose.

Brick was on the observation platform when they went by the rear end of the freight caboose. The two trains were running at almost equal pace. The platform was crowded. Brick stopped to take in the show.

The hind man on the orange drag was a short chubby fellow wearing a bill cap hind part before. He had a smudge of grease on each cheek and another over the forehead. He was putting on a clown act.

He blew the whistle and danced, and cavorted, and shook his fist at the flagman on the Limited. Finally, in mock rage, he stood on the cross timber of the caboose, and swung to the platform of the observation.

Breathless, the crowd gasped. The change was made at sixty miles an hour. The clown joshed the ogling girls and when the Limited passed his forward platform, he swung neatly back, thumbed his nose at the Pacific flagman, and disappeared.

Brick hurried back through the coaches. He was calling excitedly: "Newspapers! Magazines! Books!" But he was thinking of something else. That clown of a brakeman climbing from one train to the other had given him an idea.

"Funny I never thought about it before," he was thinking. "Damn funny! Why, I've jumped 'em lots of

times at fifteen or twenty. If a fellow can make 'em at fifteen, why not at fifty?"

He wired Warren to meet him at Monksburg station. The attorney did so, but looked a trifle bored as he strolled out on the platform.

"Say," cried Brick. "I've found how our guy got off that train that night."

"What guy? What train?"

"The guy that killed Pat O'Malley."

It was the lawyer's turn to be excited now. "What's that?" He seized Brick's arm. "Wha—"

"Yes, sir. It's easy as pie. For thirty miles along there, this P. & A. an' the Pacific runs side by side. There was two orange trains that night, one on each track. They was racin'. I remember it. The Pacific man was in the lead. A man could do it without a hitch."

"Do what?"

"Switch from one train to the other. Don't yuh see? It was like this."

Brick indicated with his hands. "Two trains are runnin' side by side here. The murderer strikes, darts out the door of Pat's caboose, an' hops over to a ladder on the P. & A. drag. They don't find him on the train where he done the job because he ain't on that train.

"He was rollin' into Monksburg on the P. & A. an' laughin' up his sleeve to think how slick he'd fooled 'em."

**Jack's Magnificent Gesture**

BRICK worked back into Tuscany, arriving at 1.00 A.M. One small bulb was lit in the Grogan parlor. Magdalena, eyes burning like desert stars, was waiting for him.

"I thought you'd never come, Brick," she chattered.

"Why—why—" the redhead stopped. It took all his will power to resist the temptation to take her into his arms, to tell her how he loved her. "What's up, little girl?" he asked in a husky tone.

"Nothing only—only— Well—" she laughed foolishly. "After I went to bed, I had a hunch. You know, there's a town in Sonora called Magdalena. I wondered—"

"If you were named for the town?"

"Yes. And not only that. I wondered if Daddy used to work there or met my mother there." She paused wistfully for his answer.

Brick considered. "There might be something to it, kid," he said.

"Will you go down there?" Dalena suggested. "You might learn . . ."

Brick did some quick thinking. He had less than fifty dollars. Warren had required most of Jack's balance to cover fees and expenses of trial. Magdalena may have read his mind.

"If it's money," she faltered, "I might—be able to help out. I have a few hundred. It won't—be worth much to me if—if—"

Brick nodded understanding. He knew the girl was shuddering at the thought of her lover in the electric chair.

The trial was now a scant two weeks away. Whatever was done must be done quickly. Brick reported off duty. He caught a train to the border and rode south to Magdalena.

Magdalena is an ancient city of five thousand population. It serves a territory rich in legend and in agricultural products. For generations it has been the trading center for mighty

*haciendas* (ranches), where live the brave *caballeros* with their peons and their cattle.

Entering the town, Brick put up at the hotel off the plaza and scouted around. He met an old boomer brakeman now running a shop, a fellow named Elbert Sales, to whom he told his mission.

Sales agreed to help. Together they inquired of elderly natives and Americans of long residence whether anyone had ever known Pat O'Malley, a railroad conductor, running through Magdalena. Nobody recalled him.

Brick had brought along one of Magdalena's ear-rings. He flashed it on old-timers. He asked questions and read faces for his answer. But at the end of a week he knew exactly nothing.

On his last day in Magdalena, while sauntering past the mission of San Francisco Xavier, he encountered a beggar. She was an ancient crone, ragged, disreputable, consumed by disease. She hobbled on a cane, pointing to her wrecked and ruined condition.

Brick fished a silver *peso* from his pocket. She extended the palsied hand. He dropped the coin. As the hand closed over it, he observed about her neck three greasy leathern thongs. Attached to two of them were bits of filthy rag which carried tokens for the warding off of evil. Attached to the third was a familiar-looking *silver cross!*

Instantly Brick came alive. The *pobre* muttered her *"Gracias, señor.* May the mother of God be kind to you!"

Brick studied the cross. It was not a crucifix. It was a swastika. Except that it was not lined with jade, it might have been the one he was seeking.

He fumbled for another *peso.* The *pobre* stopped. Avaricious eyes appraised him. "Here," he thought, "may be the *one!*" He did not pass over the coin. He shrewdly held it between thumb and finger.

The old hag smiled encouragingly. Brick began talking in the best Spanish he could muster:

"Did you know an American named Pat O'Malley?"

No, she didn't.

"Did you know a man with a scar on his face like this?" indicating the imaginary cut in the eyelid and down.

The face was impassive.

"Have you ever seen a thing like this?" He flashed Magdalena's ear-ring.

At sight of it, the dull eyes gleamed. Trembling hands stretched out eagerly, trying to take it from him. The piteous voice broke into a startled cry:

*"Est la cruz de la plata. Madre de Dios! Est la santa cruz!"* (It is the silver cross! Mother of God! It is the holy cross!)

Brick dropped the coin into the groping palm. "Whose?" he asked eagerly in Spanish. "Whose?"

Instantly agitation was gone. The face became an expressionless mask. The beggar whined, fingered the silver *peso,* muttered dully: "No *sabe, señor! No sabe!"*

Brick knew he had stumbled into something. He was certain not only that this beggar knew the cross but that it held significance. Until night he pleaded with her. He thrust a handful of bills under her nose. He sent Mr. Sales to her, but the only answer either of them could get was: "I do not know!"

THE trial opened with a bitter legal fight as to whether Jack's "confession" should be admitted. The court ruled it should be, even though

the prisoner claimed it had been forced from him by "third degree" methods.

Then examination of witnesses began. Jack, thin, pale, calm, took a place beside his attorney.

The prosecutor established the fact and manner of death, and built up a line of evidence hard to beat.

The accused had been with the body. His knife had been in the caboose. He was an expert with the instrument. There had been ill feeling between him and the victim. The train had been running at a rate of speed which precluded the possibility of any person having left it between the time of the murder and its search by the posse.

Finally, the purported confession was read. It was signed in Jack's own hand. Asked if Larkin had written it, one of the officers presenting it declared it had been "deduced from statements made during the period of questioning," and signed by the defendant. With a confident smile, the prosecution rested.

Mr. James P. Warren was clever. He could not go into intimate details of the purported confession because the men who obtained it were not on trial. This "confession" had been obtained at the end of sixty-seven hours of intensive "questioning" by the police.

That fact meant little to men who had never been thus "questioned." They could not understand how an innocent man could swear away his life just to keep from being "questioned." Furthermore, in the selection of the jury, every juryman who had been "accused of crime" had been challenged by the prosecution, so that not a juryman had a chance of having been "questioned."

The jury was skeptical. They nudged each other and smiled their smiles of unbelief.

Warren shifted to other lines of attack. He brought out the fact that for many miles before and after the murder the train had been running side by side with another train. He produced experienced trainmen who declared that the transfer from one train to the other would have been quite possible.

He next sought to discredit the validity of evidence established by the prosecution. The defendant claimed to have been out of the caboose at the time of the murder, inspecting a hot box. Warren proved by yard employees in Monksburg that there had been a hot box on the orange eight ahead of the caboose, and that it had been "doctored."

Warren next proved there was an unlimited number of knives which might have been used in the crime, and in Monksburg alone were many men who could have done the deed.

From there he switched to the matter of motive, despite vicious objection from the prosecution, and established the fact that a silver cross of peculiar design had been missing from the deceased's effects when the body had been stripped, and that this cross had not as yet been recovered.

THEN Brick was put on the stand in an effort to prove that at least one previous attempt had been made upon Pat O'Malley's life by a person other than the accused.

From the moment he began his testimony he met with a storm of protest from the prosecution. At every question put by his attorney, the opposition was on his feet thundering his "I object, your honor, on the ground . . ."

Three times the jury was sent from the room, while the judge decided whether this bit of evidence or that should be admitted.

In the end, only the barest facts were brought out; no theories, no deductions, no reference to the Mexican who wore the ring to match the missing cross. The effect of this testimony was greatly weakened by the fact that he could not positively swear that the first attacker was not Larkin, and the further one that he had never mentioned the attack until after Larkin's arrest.

Even depositions as to Brick Donley's honesty and integrity from Old Hell Bender, president of the S.T. & S.F. Railway, and peace officers in Weller failed to offset these facts.

The case went to the jury late Monday afternoon. Jack knew he was in a tight spot. So did his friends. As he was led back to his cell, Magdalena, lovely in black silk, eyes glistening with unshed tears, flashed a message of encouragement. He smiled bravely—and was gone.

Brick remained with Magdalena. He knew she needed him as never before. In the twilight they left the city and walked together out into the desert, where giant *sahuaras* stood with pleading arms outstretched to heaven.

He held her hands, and in the light of the desert moon, looked into the tear-filled eyes where love was burning. He turned away in agony, aware that love like hers was not for him.

The following morning, the jury returned its sealed verdict. Jack was taken to a crowded courtroom to hear it. Brick brought Magdalena.

It was an occasion which, for three of those present, would never be forgotten. The dingy courtroom. The solemn, black-robed judge. The whispering crowds, growing still. The calm voice reading: *"We, the jury...John Jacob Larkin...verdict guilty..."*

Breathless agony, as Jack, his face a mask of ashen pallor, rose unsteadily to receive the sentence. The solemn voice of the judge pronouncing sentence:

*"On the second day of November ...in the electric chair...May God have mercy on your soul!"*

Magdalena reeling from her chair, screaming: "You can't do that! He's innocent. He's—" The heavy arm of the law hustled her away.

BACK in Tuscany, Brick kept thinking about the expression on the face of the old beggar in Magdalena, Mexico, to whom he had shown that cross. He was convinced he had been near the solution of the mystery. But he couldn't think of anything to do about it now.

When he reported for duty, Stimson was none too cordial.

"Are you through sleuthing?" the manager asked shortly.

"Yes, sir, I reckon so."

"Well, you better be," said Stimson. "The Pacific officials raised merry hell about your nosing into this O'Malley murder case."

"But, Mr. Stimson," the news butcher protested, "I'm convinced Larkin's innocent."

"Listen, Donley. Everybody except that hysterical girl of O'Malley's knows he did it. She's so goofy over Larkin she can't even think straight, and now get down to business. I'm not going to use you on the Pacific again. Stick around a few days, and I'll get you on the P. & A. But if you'll take a bit of advice, from this time on you'll peddle merchandise for the Fredrickson people, and let bulls and flatfeet nose out criminals."

Brick did not argue. There were reasons why he should remain in Tuscany. He could not leave Dalena in

her crisis. She clung to him now as to a brother.

Then there was the chance that something might come to light. He kept a lookout for the man with the scar and the swastika ring, and even hired a private detective to help.

On the job, he formed the habit of watching Agua Frio whenever he went through. He could see from the P. & A. tank the Pacific pumping plant two hundred yards away. More than once he wondered if his man might be there in hiding. Once so strong was his hunch that he reported off duty and watched the plant all night. His vigil was rewarded only by the barking of restless dogs.

E. S. Dellinger, Author of "The Silver Cross," and the Adobe Shack near Albuquerque, N. M., in Which He Wrote This Story

Three of the five weeks between Death and Jack Larkin went by. Brick and Magdalena went to visit him. When the doomed man told her goodby the third time, he asked her not to come again. Two weeks from the day of execution, Brick went alone.

"I want you to be good to her, Donley," Jack told him. "I've never known a man..." The prisoner broke down for just a moment.

"Brace up, old boy!" said Brick. "We're still trying—"

"Don't try to kid me, Donley. *You* can't help me. *Nobody* can help me. The cards are stacked against me." He choked, stopped, continued. "Before I go, I aim to do some—some stackin' myself."

Brick looked up. "What—"

"If she knew I'd killed her old man she'd hate me, wouldn't she?"

"But you didn't!"

"Wouldn't she?" Jack persisted. "Wouldn't she hate me if she knew that?"

There was a mute plea in the prisoner's eyes, a plea and a cunning gleam. The significance of the statement seeped through Brick's consciousness.

"I—don't know, Jack," he faltered. "Don't be a fool. While there's life there's hope. Don't do anything to block us, in case we should uncover something at the last moment."

Jack laughed harshly.

"When the last deal comes, Donley, I aim to strip the deck—for—for her!"

LATER, in a calm talk, while motoring with Magdalena, the news butcher said: "The only way we can do anything for Jack is to prove that somebody wanted that cross badly enough to commit murder for it. Not only that but produce the person."

The highway circles both tanks at Agua Frio, keeping to the hills above. When on their return, they came out on the height overlooking the tanks,

Brick drove off to the side of the road and stared moodily down upon them.

"There"—he waved his hand in the direction of the Pacific layout—"is the key to our mystery."

Magdalena followed his pointing finger. The autumn sun was painting the top of the tank with gold and crimson. Its shafts were playing on the wizened figure beside the shanty door. At his feet a pair of mongrel dogs were lying.

"You know, Brick," she said slowly, "I've another idea. It may fall flat, but—"

"What is it, little woman?"

"We think somebody wanted that cross."

"Yes."

"If he wanted the cross, maybe he wanted the ear-rings, too."

"Yes?" Brick wondered what she was thinking.

"If he did— Don't you see? If he did and if he knew where they were, maybe he might try to get them."

Brick saw the possibility. Magdalena's idea was to use the ear-rings as bait to lure the murderer from hiding.

"It won't cost us anything to try," she urged.

"It might cost *you* a lot if it succeeds," Brick objected. "If that bird comes for them he may come with a lifted dagger."

"What matter?" she laughed bitterly. "What will anything matter after a few more days?"

They drove home. Magdalena put on a silk *mantilla,* fastened the ornaments in her ears, and paraded down the streets. Wherever she went people turned to stare. Wise ones tapped their foreheads. Gossips whispered:

"Has the girl gone mad? Has she no respect for the memory of her father? Has she no respect for the lover doomed to die?"

SHE spent that night and the next day in Tuscany. The following evening she went with Brick to Nogales. They crossed the border to the night club where revelry was in sway.

The second day they drove to Agua Frio. Brazenly they paced the cinders where Juan Baca could not help but see them. Brick watched the watery eyes. A flicker crossed them when they saw the ornaments of jade and silver. Just a flicker and it was gone.

The third day they determined to widen the scope of their baiting. They would go to the town of Magdalena.

Into the car they climbed, drove down the highway with mountains towering to right and left into the city. Peons eyed them dully.

They lunched in the hotel off the plaza. They walked the streets, loitering past the federal building and the old mission. They met the beggar in her rags. The three rawhide thongs were still dangling from her neck. They dropped a *peso* in the outstretched palm and watched the eyes which studied the silver crosses yet pretended not to see. *All in vain!*

Back into Tuscany, hoping, flaunting, waiting. Brick felt uneasiness and despair. The hours drew on. He followed the girl like a shadow. Whenever she went down the streets, he was at her heels.

On the evening of the third day before the execution Magdalena's hopes took another tumble.

"We're not getting anywhere," she faltered. "There's something wrong. Maybe it's your following me. If only you'd keep away—"

"And let them strike you down?"

"It's my request. As a friend, you will not fail me. Please, it's our only chance. Go out on your run. Leave me alone until after . . ." She stopped.

"Then I'll hire a shadow."

"No! Leave me alone! I can take care of myself. If I can't—"

Brick quit arguing and went for a last visit with Jack Larkin. Instead of the usual friendly greeting, Jack met him with an unexpected sneer.

"So you came, did you, Donley?"

"Sure!" Brick was puzzled.

"I thought maybe you'd got wised up by this time."

"Wised up?"

"Yes. Wised up! Read that an' quit bein' a bigger fool than the Lord intended."

Jack glanced furtively about, thrust a paper through the bars. Brick unfolded it. The writing was clear and bold, and stated:

**To the bulls that caught me:**

**It would be too damn bad to kick off and leave you boys wondering whether you'd croaked the wrong man. You didn't. My confession was O.K. I killed Pat O'Malley. He had the goods on me for another job. Nobody knew it but him. I made love to his daughter as a blind. I waited too long. It was me that Donley almost caught that night in Monksburg. I slipped back to the caboose and changed clothes before they got there.**

**Don't worry about that silver cross. There are lots of them. You might find that one if you dig long enough in Meddler's arroyo, west of Monksburg. That's where I dumped it. Dear little Maggie put the idea in my head when she wondered what might be the story of that cross. So long, world!**

**(Signed) JACK LARKIN.**

BRICK was dumfounded. He stared. Jack was rocking to and fro on the balls of his feet. He gave a hollow laugh. "Had yuh fooled, all right, didn't I, Donley?"

Brick gasped. "You—don't mean for me to believe—"

"What the hell else do you think I mean, you sap?"

"But the fellow I saw that night was Mexican," the news butcher protested. "He talked the lingo—"

"I talk the lingo better than the Mex himself. Listen!"

Jack reeled off a dozen sentences. His "*Madre Dios!*" was an almost perfect imitation of the exclamation Brick had heard that night in the Monksburg yard.

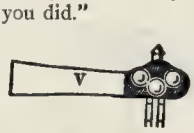
The guard was coming. Jack snatched the paper, slipped it into his bosom.

"From here on, Donley," Larkin was almost sneering, "you'd better confine yourself to peddlin' peanuts, an' let somebody that knows how do the detective work."

Utterly dazed, Brick turned to walk away. Point by point, he went over Jack's statement. It seemed plausible to the last detail. It could have happened exactly that way. Then something caused him to turn and peer down the corridor.

Jack Larkin's head had gone down. His step lagged. The guard was almost carrying him. Brick's eyelids fluttered. His throat became full.

"*Almost* fooled me, Jack, old boy!" he said huskily. "I'll let you go out believin' you did."



**At the End of the Trail**

TWICE that afternoon Magdalena saw a black-clad stranger loitering along the street. She could not see his face. She followed. He disappeared.

That night she went out—*alone*. She looked in crowds for the man with the scar, but did not see him. Magdalena went up on the viaduct over the Pacific Railway yards. She leaned over

the railing to watch switch crews sort box cars. No. 91, the Pacific Meat, pulled in.

When she looked again, a stranger was between her and the stairway up which she had come. She sauntered toward him. He was looking down in the yards.

She cleared her throat. The man did not turn. Dalena passed within arm's reach. He was wearing a black suit and patent leather shoes. She thought the suit was broadcloth.

She idled down the steps. The yards were dark. The man did not follow. Magdalena filtered through the yards and out into the unlighted streets. Strange men whistled. Drunks jostled her. Finally, she went home, feeling a terrible premonition of evil.

It was nearly midnight. The hall was dark. Magdalena could not recall when that light had failed to burn. She wondered if the bulb were gone. She opened the screen, crossed the porch, slipped into the dark hall.

The girl fumbled for the light switch. She was thinking about the bulb. Came a sound behind her. She screamed. She had not intended to do so.

Frenzied arms closed about her neck. Frenzied hands clutched. Twin shafts of pain shot through her ears.

She caught the clutching hand. A light flicked on at the head of the stairs. A heavy ring was on the hand. She clung to it. Startled voices shouted. Steps stumbled on the stairs.

Her attacker was wiry. With a startled "*Madre Dios!*" he flung her from him, made for the door. Pat's daughter was up and fighting like a tigress. In the dim light she saw a scar on the right side of the face—a scar which began at the eyelid!

He flung open the door, leaped from the porch, fled into the darkness. Magdalena was stumbling from the porch when hands caught her. She was screaming:

"Get him! For God's sake, don't let him run away! It's the man! The man who killed..."

As she struggled toward the open door, Mrs. Grogan in flannel nightie, a trainmaster's clerk in pink pajamas, and a brakeman supported her. They were chorusing: "Did he hurt you? Where did he go?"

And then they saw the girl's ears. They were dripping with blood! The ornaments were gone. Torn off. Magdalena sat down to lament.

"I had my chance! Oh, God! I had my chance and muffed it!"

They wrangled her to her room. Aroused neighbors came and hunted for the thief. One reckoned:

"Maybe that news butch was right. Maybe somebody else killed Pat O'Malley. Maybe somebody ought to take it up and try to stop that execution."

Another guessed: "It's just a trick. A trick hatched up between O'Malley's girl and that guy Donley, to get Jack Larkin free."

An hour passed. They gave up the chase and returned to bed or to speculate.

THE Pacific pumping plant at Agua Frio had quit operating. All day, repair men had worked on it. They had finished after dark. The tank was empty. Juan Baca knew he would have to keep his engine running nearly all night to supply it.

At 10.30 his boiler had plenty of water. He put in a fire and took a little nap. At 11.30 he loaded his grates. He still had plenty of water. He took another little nap.

This nap was almost too long. It

was after 1.00 when he awoke. No. 91 had whistled for the station. He jumped up and looked at his gage. Steam was down. His fire was low. So was his water.

The old-timer put in a fire. He intended to fill the boiler when the fire was done. He did not fill it.

No. 91 stopped at the tank. The fireman pulled down the spout. Juan went outside to watch. Soon the tank was full. The Pacific Meat pulled out. Juan went back into his boiler room. A step sounded on the gravel. A low voice spoke excitedly in Spanish. Juan whirled. There stood—*the man with the scar!*

"Don Diego!" cried Juan.

Don Diego Ramirez came stumbling into the room. His hat was gone. His hair was tousled. His face looked as if a tigress had attacked him. His collar was torn off. His coat was ripped.

"I have them at last!" he was crying in Spanish. "Praise be to the blessed saints. I have them all! Oh, such happiness!"

Juan forgot his boiler. Habits and lessons of a quarter century were forgotten. He hurried to the shanty. Don Diego Ramirez was at his heels.

The old man lit the coal oil lamp. Don Diego fished in deep pockets. He found a silver cross, a pair of ornaments for the ears, and laid them on the table. Beside them he dropped the ring removed from his finger.

"*Las cruces santas!*" he exulted.

Both men stooped low, examining them. They fondled their treasure and gloated over it. A train whistled for the tank on the P. & A., stopped, filled, and called in a flag.

Juan lifted watery eyes. They were wide with terror.

"Mother of God!" he whispered. "I forgot—I—I forgot!"

He hurried toward the boiler room. Don Diego followed. He looked at the water glass. No water was in sight!

Juan hesitated. He recalled what had happened to other men who had forgotten to put water in a boiler—and had remembered. Slowly he backed from the room. Slowly he re-entered. Not in more than twenty years had he forgotten. Now—

Like a sleep walker he approached the boiler. Gingerly he felt out the injector. He was praying: "Holy Virgin! Let me not be too late! Let there be water..."

But the Virgin's ears were sealed. The injector caught. Cold water met hot metal. Juan burst from the boiler room, hands over his head. He stumbled into Don Diego, shrieking:

"Back, my lord! Back..."

His voice was drowned in a terrific roar. The earth seemed to rise. The buildings to fall. And darkness closed.

BRICK left Pass City on the "Golden Gleam." He came through Monksburg at 12.50. No. 91, on the Pacific lines, left thirty minutes ahead of him. He disliked midnight runs. There was little business, because most of the passengers were sleeping.

He kept thinking about Jack Larkin. He debated whether he should try to see his friend again. Might it not be better to let things stand as Jack had left them? Maybe Jack would wish it thus.

He thought about Magdalena. How would she take her lover's confession? Would she accept it? Would she renounce her love for Jack and turn to him?

That brought another thought. When his love for her had seemed

hopeless he had longed for her. He had thought he could not live without her. Now he recalled with misgiving that his own life was set in boomer trails. Could he forsake that life and tie himself to a woman?

Once there had been another. His heart had all but forgotten her. Was love of a woman to be in his life only a passing thing?

The "Golden Gleam" stopped for its drink at Agua Frio. As usual, Brick climbed down from the smoker. To the south he could see the smear of red which was the spur track switch on the Pacific. He could see the oblong glow from the shack window.

Came another glow. The door of the shack burst open. One shadow darted from it. Another quickly followed. He could hear the distant exhaust as the ancient boiler forced water up into the Pacific tank.

His engineer called in the flagman. Conductor and porter came into the smoker. Brick followed them up the steps. He watched the porter close the vestibule.

The engine coughed. The train moved outward toward the desert. Gloomily he stared southward toward the receding lights of the Pacific tank.

"The key to it all!" he thought.

There came a flash of light, followed by the dull roar of an explosion.

Brick stared on toward the Pacific plant. The red light, the glow from the window were blotted out. A cloud seemed suddenly to have arisen where the tank had been.

Muttering "What the hell!" he burst into the smoker. The conductor was not in sight. Brick grabbed a flashlight and darted back to the vestibule.

He jerked the whistle cord in a stop signal. He flung open the trap. He swung to the ground from the moving train, and sprinted toward the Pacific plant two hundred yards away.

Over sand banks raced the news butcher, tearing through patches of mesquite and manzanita. Before he reached the plant, he knew it was not there. It had been wiped out.

Brick remembered the ancient boiler and smelled hot steam. He saw a cloud of it rising to the heavens. Obviously, there had been an explosion.

BEFORE reaching the scene, he realized another thing. Pacific No. 12 was almost due. He stumbled into the pile. Débris from the wrecked tank was piled head high upon the tracks. If No. 12 should plow into that—

Brick flashed his light over it. He could see nothing for the white fog. Then he called. He heard no answering shout.

No. 12 was now whistling. He turned away and sprinted up the track to meet her. The headlight plowed around the curve. Brick swung his flashlight.

The whistle answered. The train stopped. Her engineer came down demanding what was wrong.

"The tank!" Brick shouted. "The boiler exploded. The tank's gone down!"

While the engineer was getting his torch, Brick dashed back. The white cloud was still climbing to the heavens. Many thousand gallons of water had spread out over track and right-of-way.

In the track the redhead heard a muffled groan. He plunged through the fog. He expected to find old Juan Baca. But Juan Baca was not there.

The twisted broken heap of drenched and tattered broadcloth held the man he had been searching for—the Mexican who carried the scar and wore the ring. There was no mistaking it. The

scar was visible beneath the grime of blackened water.

The mouth was not set now in sinister smile. From the lips a crimson froth was flying, and in a dying gasp they whispered in the native tongue:

"The holy crosses. Ah, woe is me! The silver crosses came too late—too late!"

Brick heard the muttering. He tensed. His mind repeated: "The holy crosses—came too late!"

The hoghead had come with the torch. In its flickering light Brick could see a wobbling right hand rising, rising toward the froth-specked lips. He seized the hand and pried open the stiffened fingers.

Those fingers clutched in the grip of death—*a ring, a silver cross, a pair of ear-rings set with jade!*

"My God!" Brick recognized the ear-rings and clutched the dying shoulder. "Did you kill her?" he shrieked. "You murdering devil! Answer me! Did you kill Magdalena?"

The blace eyes glazing fixed upon him. They stared, and recognition came; and with recognition, the mocking smile.

"Magdalena! No—no! I do not keel Mees Magdalena! I cannot keel Dolores' daughter. I—only—"

A fit of coughing shook the form, and fresh froth thickened. Pacific men were now upon the scene.

"What is it, Brick?" Conductor Rader asked. "Who—"

"It's him!" croaked Brick. "*The man who killed O'Malley!* See the cross he stole! And Magdalena's ear-rings. He's got them tonight."

BY this time old Juan Baca had come, jabbering prayers and curses. He had been only stunned. At sight of Don Diego he threw himself beside the dying one, sobbing and muttering in his native tongue.

Brick seized him, not too gently.

"Do you know this *hombre?*"

"Oh, *sí!*" the pumper quavered. "I know heem. He ees one great *caballero*. He is Don Diego—"

The dying man lifted a finger. He signed for Juan to come nearer. His voice sank. Brick, watching breathlessly, feared each word might be the last. He wanted a full confession before life fled.

Don Diego drew the old man's head down close. The others listening could scarcely hear the whisper.

"*Dijelos, mi amigo! Dijelos la verdad!*" (Tell them, my friend! Tell them the truth!)

The head fell back on Donley's shoulder and breathing ceased. They carried him from out the track and laid him down. Old Juan stood over him. Pausing from time to time to sob and moan, Juan, switching back and forth between his own tongue and the English, revealed the story.

CENTURIES ago, old Don Diego Ramirez had done a favor for the King of Spain. Felipe had presented to Diego's wife "thees trinkets that you see." The king had blessed them. They were to bring peace and plenty to his faithful subjects.

For many generations the family had prospered on their *hacienda* in Sonora. "Beeg rancho—many horses—many *vacas—muchos* ships for the wool—*muchos* happy people. Ah, but that was one great *hacienda*. There I was born. I taught the young Diego how to ride and how to throw thees knife."

Then young Diego had been smitten of a city girl in Magdalena. "She was ver-ver' beautiful, thees Señorita Do-

lores. Beaut-tiful as the moonlight on the *lago*. He love her. She say she love heem."

In secret he wooed her. In secret he stole the blessed crosses and let her wear them. And while she wore them, there had come a "*gringo*, an Americano who work on thees new railroad. One night she vaneesh weeth thees *gringo*. And weeth her go the crosses, the holy crosses!"

Then to the *hacienda* of Ramirez had come misfortune. "Oh, so great misfortune. Fire! Flood! Death!"

Young Diego, knowing it was all because he had misused the holy crosses, set out to find them. He had found the false Dolores, "leeving weeth thees *gringo*—far-far north. He had found her! He had snatched the ring! But for the knife thees *gringo* strike heem weeth, he would have gotten all.

"The res' you know, my fren's. How my Diego keel the *gringo* not so long ago, thees *gringo* who have steal hees beaut-tiful Dolores. And then to-night he tek the other crosses from Dolores' daughter. It was not stealing? No? Mi Don Diego was but taking what was hees. Is it not so?"

NIGHT in Arizona. Desert stars bloomed. Desert moon beamed. The "Golden Gleam" sped eastward through thickets of mesquite and manzanita.

The Pullman floor was strewn with rice. The bride and groom were smiling happily. Fellow passengers looked on with fond hopes or fonder recollections.

Through the front vestibule a new figure came marching. His news butch cap was shoved jauntily back from a mop of red hair. His blue eyes gleamed.

The bride looked up, a smile of greeting in her eye. The groom laid out a hand to stay him. They chatted gayly. The news butch wished the couple joy.

Jack Larkin gripped the hand which Brick extended.

"I reckon you'll be going soon?" asked Magdalena O'Malley Larkin.

"Next week, I think," Brick Donley answered. "I'm headin' north to claim my rights on the brakeman's board at Weller."

"If we don't see you," quavered Larkin, "it must be good-by, my friend!"

He left them then, and strode along the aisle. The smiling mouth was quivering at the corners. The laughing eyes were just a trifle dimmed.

"Oranges, apples, fresh roasted peanuts...soda water and ginger ale ...all the latest magazines..."

Tenderly he fingered a cross upon his bosom—a cross of silver lined with jade which Juan had given and Dalena had decreed was his.

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## Sunday Excursions Forbidden Thirty Years Ago

**ALTHOUGH most of our so-called "blue laws" date back more than two centuries, an official order discontinuing all Sunday excursions on the Milwaukee Road on the ground that they were "debasing" was issued June 8, 1905, by President Earling of the Chicago, Milwaukee & St. Paul. The decree followed a surprise visit of President Earling to Chamberlain, S.D., where a trainload of excursionists were found to be enjoying life in a manner not at all in keeping with Mr. Earling's views on Sabbath observance. Needless to add, this decree did not last very long.—E. J. Baker.**

# It Happened in Real Life

DELLINGER'S story, "The Silver Cross," tells about a conductor being murdered aboard his train. Some fiction critics unfamiliar with railroad history will grunt: "Baloney! Such things never happen in real life." Don't be too sure! Here is an incident which actually occurred fifty years ago, on a cuttingly cold night in February, 1885.

The Texas plains were frosted with powdery snow. But Conductor Frazier's train on the International & Great Northern (Missouri Pacific), heading toward Galveston, was cheery inside. As it pulled out from Overton, the colored porter, Davis—a dapper fellow with sideburns and Spanish mustachios, looked up and down the train for tramps. He saw two men climb on the blind end of the baggage car up front. Tramps were Davis's business. He banged the door shut, marched up through the coach and the baggage car, and opened its front door with a key he had in his pocket for just that purpose. The train had not yet picked up much speed.

"Git off!" he commanded. The men whirled and faced him. They had on masks, and each carried two six-guns. Four guns were entirely too many for Davis, who suddenly retreated, slamming the door. But he'd had a glimpse of the two faces.

A car or so down he met Frazier, and panted: "They's two tramps on the front of the baggage car, suh. I told 'em to git off, suh, but they got guns."

Frazier was too good-natured to put anybody off on the open plains on such a night. "I'll bring them into the smoking car and drop them off at the next station," he said. "This weather is terrible."

He and Brakeman Powers went through the baggage car and opened the blind door. The bandits, expecting an attack, instantly opened fire. Frazier fell dead. Powers was wounded. He banged the door and staggered back into the car. The gunmen then leaped off into the thin snow.

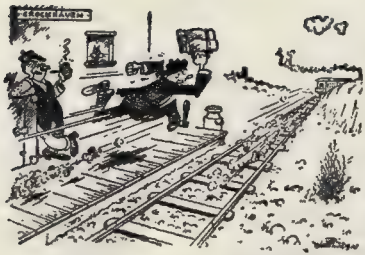
The murder was reported to General Manager Hoxie at St. Louis. Hoxie sent detectives to Overton and ordered a special train up from Marshall carrying a pack of bloodhounds which had been lent by the Texas and Pacific. The dogs were in charge of a man named Mundoon, who had great faith in them.

Aroused men of Overton had already—at dawn—picked up the snow trail of the fugitives and followed it to that town, where it mingled with others and was lost. Eager among the searching posse was John Price, the town blacksmith, a hard-boiled hombre but a staunch citizen. When the bloodhounds showed up, yapping and baying, he snorted with contempt: "You'll never get anywhere with those!"

Nevertheless the hounds set up a bellowing and started off—TO THE PICKET FENCE AROUND PRICE'S SHACK! "That's a good one!" roared Price. The crowd hooted and jeered at the dogs. Mundoon patiently led them back to where they'd started, and the animals picked up a second trail—TO THE HOME OF JOHN KNIGHT, PRICE'S BROTHER-IN-LAW!

A few hours later, Davis, in disguise, stepped from a train. Wearing a battered hat, seedy trousers and frayed shirt, he looked like a farm hand out of work. The porter had parted with his precious sideburns and mustaches in order to go to Overton and identify the suspects. He quickly pointed out Price, who was shoeing a horse, and Knight—still a member of the hunt party.

Price, tough guy, was gingerly arrested. Toward the close of his trial, when it appeared that nobody dared convict him, a tall Texan ambled up to one of the railroad detectives and said: "I was afraid Price would be put in jail. Now that he's goin' to be let out, I mean to kill the rat. He shot my brother. I just wanted you-all to know." A few mornings later Price came out on his back porch to wash in a tin basin. An unknown man crawled out from under the porch, raised a six-gun and shot him through the head. No one was convicted.—Jim Holden.



*From "College Humor"*

"You Almost Missed Her This Morning, Joe".

# On the Spot

READERS' votes for favorite railroad author continue to give E. S. Dellinger a very heavy lead. The Engine Picture Kid (John A. Thompson) has forged into second place, followed by Chas. Tyler, Boomer Bill Hayes, Jimmy Earp, Earle Davis, John Johns, Frank L. Packard, N. A. Critchett and S. B. Faires. Votes on the December (Fifth Anniversary) issue were incomplete at the time of going to press. Returns so far give the following line-up in order of popularity:

1—"Return of Redball," Dellinger.
2—True Tales of the Rails.
3—By the Light of the Lantern.
4—"Speed War of Century," Critchett.
5—On the Spot.
6—"Railroad Drummer," Tyler.
7—"Built for N. Y. Central," E. P. Kid.
8—Model Article and Trading Post.
9—International Engine Picture Club.
10—"Fantastic Trains," Jim Holden.

**Get your votes in early on the February issue. Clip the "Reader's Choice" coupon (page 143) or write the information in a letter or postcard. We can't find space to print all the interesting letters we get, but we use as many of them as possible.**

* * *

A NEW play of interest to rail fans is "The Farmer Takes a Wife," based on W. D. Edmonds' novel, "Rome Haul," presented by Max Gordon at the 46th St. Theater, New York City. The period is 1853, when the little roads which comprise the present N. Y. Central System are struggling to gain a foothold in upper N. Y. State. Opposed to them is the "Grand Canawl" (Erie Canal), extending for more than 300 miles between Albany and Buffalo. Finally Wylie Adams, as a passenger conductor, summarizes the situation: "You can't stand up against a railroad train!"—F. H. H.

*Here are slogans suggested by readers:*

"Popularize, publicize and patronize our railroads."—FRANCIS DONAHUE, 22 Rockdale Ave., Peabody, Mass.

"Shipping by rail and traveling, too, keeps prosperity working for you."—MARSHALL SCHAEFFER, 609 W. 188th St., N. Y. City.

"Ship by rail or no sale."—CARLETON OSGOOD, 373 Granite St., Quincy, Mass.

"Rail transportation first, last and always."—FRED MOULDER, 2531 Amherst Ave., Butte, Mont.

"There are extra savings, miles of satisfaction and added safety in using trains."—G. G. BROWDER, 2414 Ballentine Blvd., Norfolk, Va.

"Train by travel and travel by train."—NATIONAL ASS'N OF R. R. ENTHUSIASTS, 1 Webster St., N. Quincy, Mass.

"Remember the railroads."—WM. EELMAN, R. D. 3 Manchester Ave., N. Haledon, N. J.

"The way to prosperity: Ship and travel by rail."—LOUIS KROACK, Harrisville, Pa.

"Ship by rail; travel by rail, steam and electric."—RUSSELL STOKES, Sewell, N. J.

* * *

LOST: P. R. R. 3-car excursion train! The train, returning from a church convention in Atlantic City, N. J., on Oct. 11, was reported "on time" passing Holmesburg Jct., Pa., en route to Bustleton, Pa. Then it vanished! When 2 hrs. passed and the dispatcher had no word, he became worried and notified the police. Maybe he had been reading John Johns's story, "The Haunted Division" (Jan., '33), or Dellinger's "Hoodoo Special" (Sept., '33). Motorcycle officers and cruising radio patrol cars circled the district—and found the train. But no passengers!

The Bustleton branch and station had been abandoned years ago and all railroad telephones removed, making it impossible for the train crew to report that one of the tender wheels had jumped the track and stalled the train. Twenty passengers living in Bustleton had walked home.

* * *

READERS interested in railroad history will find a gold mine of information in a new book, "They Built the West," an epic of rails and cities by Glenn C. Quiett, 560 large pages, 120 illustrations, $5, The D. Appleton-Century Co., N. Y. City. Mr. Quiett gives intimate details of the building of the Union Pacific, the Central Pacific, the Kansas Pacific, the D. & R. G., the Santa Fe, the Great Northern, the Northern Pacific and other Western roads which stand out large on the pages of history. He digs deeply into the facts and shows up reckless exploitation and crookedness on the part of some of the famous railroad builders, as well as their greatness. This book would be a valuable addition to any railroad library.

*Courtesy of "L.M.S. Magazine." © Fox Photos*

**An English Locomotive Queen, May Powell, Who Was Crowned at a Carnival Held by 5,000 Employees of the Crewe Works of the London, Midland & Scottish Railway**

## Foreign Countries Heard From

STREAMLINED Diesel rail cars have been taken out of service by the Great Western Ry. of England after being banned by our Board of Trade as too light. We call 'em "water rats."

I don't understand how busses seriously compete with railways in America. (EDITOR'S NOTE: *England is a country of narrow winding highways which busses cannot conveniently navigate.)* L. M. S. Ry. runs between London and Glasgow in 7 hrs.; bus takes 14 or 15 hrs. G. N. Ry. runs from London to Plymouth (226 miles) in 4 hrs.; bus takes 10 hrs. With such long distances in the U. S. A. the busses must take hours or even days longer than trains to cover the same distances. I would like to hear from American railway men.—F. H. WILLMOTH, 45 St. Ervans Rd., Westbourne Park, London W. 10, England.

* * *

YOUR "Lantern" dept. said the first Pacific type locos were built for N. Z. Rys. That is true. These first engines are still in service. Most of them have been reboilered with modern superheated boilers, but I know of one which (at least until recently) still has its original boiler. The Q class, as they were known, ran express trains many years before being replaced by more modern power. Information on these and other types of N. Z. power may be found in our *New Zealand Rys. Magazine.*—L. G. KELLY, care of Locomotive Depot, N. Z. Rys., Te Kuiti, New Zealand.

THE "Royal Scot's" puny whistle raised a laugh when she visited North America. However, it is a poor sample of British locomotive whistles. We do have better-voiced affairs, although most of them are soprano or contralto. But why not, as all locomotives are "she's"?

U. S. and Canadian criticism reached British ears, and both L. M. S. and L. N. E. R. have decided to use bigger and deeper-toned whistles. The former road reverted to the famous Drummond "hooter," a single-chambered instrument of "chime-whistle" type, formerly used for the engines of its constituent railway, the Caledonian (of Scotland). All new L. M. S. power is being equipped with this mellow tenor-noted instrument.

L. N. E. R. have just built a new pattern of express loco, a streamlined Mikado type, called "Cock o' the North" class. These are the first L. N. E. R. engines equipped with the new whistles, which are genuine triple-chambered chimes, similar to the American pattern.

The Caledonian Ry. was the pioneer of the chime-whistle in the British Isles. About 25 years back somebody had the big idea of fixing up a distinctive whistle on the road's pet high-wheeler, the famous 903, "Cardean" (4-6-0 type), that used to haul the "Royal Scot's" predecessor on the Caledonian section of her run. So they imported an American-made triple-chime for "903," and she kept it until the end of her career in 1930. This whistle is still in use on another older Caledonian engine of the L. M. S.—F. H., Liverpool, England.

* * *

HERE in Australia, as in America, unfair bus competition is forcing some railroad branch lines to close. Bus and truck drivers work 12 to 16 hours a day at wages of only $7 or $8 per week. Railroading in Australia is a cross between American and English practice. Victorian Ry. locomotives have English smokestack and American pilots. Passenger rolling stock is mainly American-designed cars, while 50 per cent of our freight cars are little 16 or 27 ton 4-wheel "trucks," mostly all-steel, fitted with Alliance automatic couplers, similar to "Janney" couplers. When these are not used, the "screw" coupling is used on passenger stock. All cars are painted red. Locos are black—except S 303, a heavy Pacific type, red with black and yellow trimmings.

Electrics run to all Melbourne suburbs. A 7-car train consists of 3 motor cars, each being driven by 4 motors through 8 wheels. All Victorian Ry. stock is fitted with Westinghouse automatic air brakes. Signaling is done by color lights, also 3-position, upper-quadrant, electric, automatic signals fitted with "trip" gear, which stop trains from passing when at danger.

Most travel in Victoria is not very fast, due to steep grades, sharp curves and speed restrictions for safety. The "Geelong Flyer" averages 45 m. p. h. and the luxurious "Syney Limited" 42.3 m. p. h. Our freight trains seldom exceed 1,500 tons. The heaviest freight loco is the X Class Mikado, while the most popular fast freight and passenger locomotive is the A Class, 4-6-0 type.

Victorian Rys. own approximately 5,085 miles of main line track, 1,036 miles of sidings, 20,000 freight cars, 25 gas and gas-electric, 2,657 passenger and 402 electric passenger coaches, 700 locomotives and 5 electric parcel vans. Gage is 5 ft. 3 in., except for a few miles of 2½ ft. gage.

Melbourne has one of the finest street car systems in the world. The cars are colored green and cream, 4 ft. 8½ in, gage. During the coming Centenary there the Victoria Govt. Rys. will hold an exhibition of old and new equipment which will be inspected by Prince Henry of Great Britain.

Here's wishing RAILROAD STORIES green lights, a clean fire, glass half full and plenty of steam. —JACK F. LEECH, 28 Vent Rd., Surrey Hills, E. 10, Melbourne, Victoria, Australia.

* * *

FEW copies of RAILROAD STORIES find their way to this part of the world, but those that do are eagerly pounced upon and passed from one reader to another until they fall to pieces. Your stories are uniformly good and full of interest, quite unlike the tripe found in many American magazines. —W. ELLIS. Puhinui Rd., Papatoetoe, New Zealand.

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AS an ex-sergeant, 65th Ry. Engineers, A. E. F., I have an interesting souvenir in the form of a Book of Rules used on the leading French railroads (the Etat, P. L. M. and P. O.) during the World War. This book, printed in both English and French, was issued to soldiers engaged in railway service. Here are excerpts from it:

"On all trains handled by American enginemen the conductor will be a French railway employee.

"Trains must not be started at a station or at any other point between stations until the condr. gives a signal which is one blast of the horn. The absence of a signal indicates the track is clear.

"A pocket whistle is used by station masters or by their representatives to give to condrs. of trains the departure signal (one long whistle).

"A horn is used by condrs. at the head end of trains to give the departure signal to enginemen.

"A bell on the tender of the engine is connected by a cord to the caboose at the head end occupied by the condr. One stroke on the bell orders an immediate stop. Stop signal also can be given by several sharp blasts of the pocket whistle or of a horn.

"Outfit for train and engine men: Enginemen must always have: red flag, red disc bordered by a white circle, lantern with red lenses, torpedoes, box of matches. Trainmen must always have: red flag, one lantern with white and green and red lenses, box torpedoes, box of matches.

"P. L. M. Ry.—In switching at stations, the direction of movement is based on the position of the smokestack of the engine with respect to the engineman. The smokestack precedes the engineman in all forward movements and follows him in all backing movements."—IRVING E. ADAMS, 6703 S. Bway., Los Angeles.

# Fiction and Fact Articles

"BENNY THE BUM" (in this issue) is the first story I have ever sold. My rail career began as a car-knocker's apprentice at Alamosa and ended abruptly when I was laid off in 1933. I can vouch for the authenticity of Lathrop's Colorado stories, particularly "Old-Timer" (Nov., '34). The D. & R. G. W. operates a narrow-gage line between Alamosa and Durango over Cumbres Pass and thereabouts.

We have plenty of snow on Cumbres Pass. Early in the winter of 1931-'32 a big storm took us by surprise. Our heavy rotary plows were not yet ready, so we worked all night getting one ready, and hightailed it up there. A passenger train was marooned up there, but the wires were down and we did not know if it was right side up or not. We took almost a week getting to them, because the snow was too much for our equipment. The rotary was always jumping the track and we did a lot of the bucking by hand. In many places drifts were 30 ft. deep. When we finally reached the train we found the passengers enjoying themselves, dining on turkeys that were being shipped by express. That was my first experience bucking snow.—ASAHEL NIELSON, 1024 La Due Ave., Alamosa, Colo.

* * *

C. C. LEACH, of Ft. Worth, who has been in T. & P. engine service 48 yrs., wrote (Jan. issue): "As an engineer I resent your use of the word hoghead . . . It is used derisively and puts us in a false light."

Nineteen years ago I fired out of Ft. Worth on the T. & P.—probably fired for Bro. Leach—and I distinctly recall that "hoghead" was widely used on that road, especially by boomer firemen, as a term of respect. Today, as a Missouri Pacific tallowpot and hoghead, I resent being called "engineer." Here's why: A *locomotive engineer* is a man who runs a locomotive. A *hoghead* is a man who uses his head to make a hog (locomotive) do anything he wants her to. He can get all there is out of a hog without putting her in the junk pile or working his fireman to death.

A super once told me he knew every engineer on his district, because he'd had 'em on the carpet so often; but he didn't know much about the hogheads, because they went up and down the line every day without trouble. When this super needed a man to pull an important special he always picked a hoghead.—BOZO TEXINO (author of true tale in this issue), P. O. Box 564, Laredo, Texas.

* * *

"RAILROAD DRUMMER" (Dec. '34) was punk; not enough railroad in it. Should have been published in "The Shoemakers' Journal," if there is such a thing.—JOHN FRENCH, 456 Pine Ave., W., Montreal, Canada.

I CAN'T say much for some of your stories. They give non-railroaders the idea that we rails are a bunch of half-baked morons who speak incorrect English and spend our time fighting and double-crossing each other. I have worked over 30 years on various roads in 4 countries and have never seen anybody as goofy as some of your fiction heroes. More things happen to them on one trip than on a real pike in 20 years. Somebody should write interestingly about true railroad life, so as not to give the impression that every time a fellow goes out on a freight train he'd better wear a bullet-proof vest and carry a rifle. Don't print my name.—BRAKEMAN, Vernon, Calif.

* * *

RAILROAD STORIES used to be a hot shot manifest. Nothing tends to cause a manifest to lose its importance as loading it down with stop freight such as this magazine carries. You have too much Dellinger. Why not put up white signals, change the name and run it as the Dellinger Extra?—ALVIN M. HAINS (50 yrs. train service), Box 34, Nottawa, Mich.

* * *

THE ENGINE PICTURE KID and Dellinger are my favorite authors. Dellinger's grand novelettes are equalled (though in a different manner) by the Kid's short and snappy adventures.— ROBERT GERSTLEY, 50 Bates Ave., S. Weymouth, Mass.

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I ENJOYED "Speed War of the Century," by N. A. Critchett (Dec., '34). I fired the old 8-wheelers of that period on the S. P. and before that I worked as a wiper. In 1907 I polished one of the first Atlantic type engines, the 3030, the morning she tipped over and killed the engine crew.

We worked 10 hrs. in the roundhouse and then often were sent out as extra switch firemen, sometimes working 13 hrs. more without rest at 15c an hr. A fireman had to fill the lubricator, charge the headlights, shine the jacket, the bell and all the brass, and sometimes shine the engineer's shoes. Once in a while they would let us run the engines to make up for this.

Every issue of RAILROAD STORIES I read through many times. If it sold for $1 a copy I still would be glad to take it.—JOE ROBINSON, 701 Haight St., San Francisco.

* * *

THAT fellow who said members are trying to commercialize the International Engine Picture Club is nuts. Why shouldn't a person who uses his money to buy other films and pictures sell his snaps?—L. DIXON, 3610 Baring St., Philadelphia, Pa.

* * *

WITHOUT my International Engine Picture Club pin I would not have been able to get into the Kansas City Term. yards in Kansas City, Mo., while taking photos last summer.—MICHAEL P. MORAN, Box 58, Farmington, N. M.

# The Information Booth

REGARDING photo of wreck of O.-W.&N. (U. P.) engine at Menoken, Wash. (Dec., '34, issue): I know the engine crew very well. The fireman, C. Ladd, fired for my father about 10 yrs. I am an ex-fireman, O.-W.&N.; would like to hear from "rails" in foreign countries.—R. A. VAN TRESS, 830 S.W. First Ave., Portland, Ore.

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WHO can give facts on the abandoned Cent. Penna. Lumber Co., of which I have a few engine pictures? This line once ran in the region north of Williamsport, Pa. Last summer, near Emmitsburg, Md., I saw 2 old engines: No. 6 (4-4-0) and No. 7 (2-8-0); who knows anything about them?—S. TOMKINS, 547 Weiser St., Reading, Pa.

* * *

I WANT details on Jersey Central "Atlantic City Express" wreck about May, 1914.—JOHN SHIELDS, care of Beardslee, Box 229, Tom's River, N. J.

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WHO can give information on Nickel Plate wreck near Tipton, Ind., involving 3 frt. trains, 6 or 8 yrs. ago?—JOHN DEGRIEF, 1611 North St., Logansport, Ind.

* * *

IN 1932 you published a picture of the "Nat Wright," a 4-4-0 balloon stack, with a request for information. O. L. Patt said it came from a lithograph adv. of the Cincinnati Loco. Works (Moore & Richardson).

Recently in the Ohio Archeological Museum I ran across old annual joint reports of the Little Miami and Columbus & Xenia R. R. companies (now P. R. R.), both run by the same superintendent. The 1856 report said "Nat Wright was built by Moore & Richardson; placed in service in April, 1854; weight, 10½ tons; no. of drivers, 4; size of drivers, 5½ ft.; rebuilt during the year."

The 1867 report said the engine was "worthless, should be broken up." The 1869 report did not list her. Evidently she was scrapped in 1868. —L. L. DICKSON, 1088 14th Ave., Columbus, O.

WHO can give details on photos of two 4-4-2 types I have in my collection: Mo. P. No. 5520 and Monongahela No. 310?—FRED VOORHEES, Box 125, Miller Place, N. Y.

* * *

THE movie "Murder in a Private Car" is a detective plot in which most of the action takes place on a train, evidently the S. P. Who knows where it was filmed?—W. SWANEY, 37 15th St., Wellsburg, W. Va.

* * *

I WANT facts on wreck of old 97 near Fort Mill, S. C., about 1906. While detouring by Rock Hill and Blacksburg, S. C., she hit a freight near Fort Mill.—F. E. AUDREY, JR., Box 503, Aiken, S. C.

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HOW many rails remember when the Georgia R. R. ran a special train carrying part of the Atlanta fire dept. to the big fire at Augusta? Engineer R. P. Brisendine made the 171-mile run with a 10-wheeler in 4 hours., 13 mins. I work the G. R. R. coal chute here, where Dad was foreman 22 years. On June 18, 1933, a main line trestle burned near Social Circle and trains were run over the Macon Div. That day I shoveled 35 tons of coal, the hardest day's work I've ever done!—JAMES MULLINS, Haddock, Ga.

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ON a 4,000-mile engine-picture tour in Aug. I covered the G. N. engine terminals between Superior, Wis., and Seattle, Wash. I passed a wreck of a G. N. fast mail train at Wolf Point, Mont. According to several rails with whom I talked, she had been hitting a pretty good clip when she struck an auto stalled on the crossing (Aug. 10, '34). Both engineer and fireman were killed. The engine is No. 2582, Baldwin 4-8-4 type, 80-in. drivers, built in 1930.—JOHN T. GRANFORS, 209 39th Ave. E., Superior, Wis.

The "Nat Wright," Built in 1854 for the Little Miami and the Columbus & Xenia Railroads

WANTED for files of Canadian Railroad Historical Association: Complete locomotive rosters, old and modern, of railways listed here, showing present and former road numbers, wheel arrangement, dimensions of cylinders and drivers, weight, tractive effort, date built, builder, and, if second-hand, any former roads and numbers.

Algoma Central & Hudson Bay; Algoma Eastern; Atlantic, Quebec & Western; Brocksville & Ottawa; Brockville, Westport & N.W.; Canada & Gulf Terminal; Central of Ontario; Credit Valley; Cumberland Ry. & Coal Co.; Fredericton & Grand Lake Coal & Ry. Co.; Halifax & S.W.; Kent Northern; Kettle Valley; Kingston & Pembroke; New Brunswick Coal & Ry. Co.; New Brunswick Southern; Newfoundland; Nipissing Central; Northern Alberta Rys.; Pacific Gt. Eastern; Quebec Oriental; Quebec, Montreal, Ottawa & Louisburg; Temiscaming & Northern Ontario; Toronto, Grey & Bruce; Toronto & Nipissing.

We aim to record the history of every locomotive in Canada, from the beginning to the present day. We will never get them all, but we have already recorded about 7,000 (75 to 80 per cent of the lot). This information is kept on file for the benefit of members of the C. R. H. Ass'n, the Ry. & Locomotive Historical Soc. of Boston, the press, railroad historians and, to a limited extent, the general public.

Any *reasonable* request for information will be answered as promptly as the limited time available will permit, but in the past we have received some very foolish and unreasonable questions, and these we have to ignore. It is difficult to identify early C. P. R. locomotives because of frequent and apparently unnecessary renumberings, and because the company foolishly destroyed all records previous to 1915. For these reasons we cannot guarantee absolute accuracy of facts on C. P. R. engines whose photos were taken before 1900 (esp. 4-4-0's). —ROBERT R. BROWN, secretary, Canadian Railroad Historical Ass'n, 5359 Park Ave., Montreal, Canada.

* * *

I RECALL the wreck on the old B. & P. in 1890 at Roslindale, Mass., when the bridge went down with a passenger train. In those days I was in an orphan home at Dedham, Mass., and often rode over that bridge; its speed limit was 10 m. p. h. This was the first bad wreck I ever witnessed. Shortly afterward a pamphlet was printed with views of the wreck and of tents used as hospitals for the injured.—C. F. HUTCHINSON (engineer, A. C. L.), BOX 182, Wilmington, N. C.

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WESTERN PACIFIC fans who want information, write me. I am a W. P. employee.—DALE ATKINSON, Keddie, Calif.

RAILROAD STORIES has my respect because it prints readers' criticisms, both complimentary and otherwise. The statement that "Mile-a-Minute Murphy" (Nov., '34) rode a bicycle faster than anybody else has caused indignation among local amateur and professional riders. On Sept. 29, 1928, Leon Vanderstuyft paced a large motorcycle in an autodrome near Paris for one hour, covering 76 miles and 504 yards in that time. He used a 190 gear, so that at each revolution of the pedals he traveled about 18 yards. His feet went around 135 times a minute. While practicing for the above record he made 82 m. p. h. And, as Ed Pugsley said (Jan. issue), "Torchy" Peden, famous 6-day rider, paced an automobile for a mile and averaged 81 m. p. h. A young man in fine physical condition and with a good bicycle could easily do a mile at 60.—ROBT. DIXION, R. R. 3, North Quadra St., Victoria, B. C., Canada.

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IN Freeport, Ill., it is early Sunday evening, Nov. 18, 1934. Daylight has faded. The driving rain has ceased momentarily; only a light mist is carried by the brisk southerly wind. A locomotive bell tolls. A few slushy exhausts burst from the stack, followed by a roar as the drivers slip on the greasy rail. A moment of hesitation and the high-wheeled Atlantic type engine pulls the eastbound passenger train out of the station. The yard limit is reached, a halt is made at the cross-over. A few sharp cracks from the exhaust and the train is on the high iron thundering off toward Chicago, with the exhausts beating an ever-increasing tempo. The blinkers disappear as the train rounds the curve, enters the woodland, crosses Coon Creek bridge. A brief interval, a distant crossing whistle and silence.

The last steam-drawn passenger train of the C. & N. W. Chicago-Freeport branch (the old Galena & Chicago Union R. R.) has passed into history! After seventy years of faithful service the iron race horse has disappeared. For all these years the hills and valleys have echoed and re-echoed with the friendly blasts of the whistles, roar of exhausts and thunder of pounding wheels. Instead of the iron steed there will be a new creature, a gas-electric car, doodlebug transportation, and perhaps only a wandering freight now and then as a reminder of the glorious past.—ROY PETERSON, R. R. 3, Belvidere, Ill.

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V. W. BELOIT (Oct., '34) asked for information on an old Shay geared engine used by the Government at Guernsey, Wyo., in 1927. She was built by Lima for Salt Lake & Mecure R. R. in 1900. Has three 12½ x 12" cylinders and weighs about 90,500 lbs. She was purchased by Morse Machinery Co., Denver, who sold her in 1925 to Morrison-Knuson Co., Boise, Ida., who used her on dam construction. She still bears Lima shop No. 598.—WINSLOW DWIGHT, secretary, National Association of Railroad Enthusiasts, 1 Webster St., N. Quincy, Mass.

# A Few of the Record Breakers

A RECORD hard to beat! Flagg M. Hill, of Lawrence, Mass., entered B. & M. service as a passenger brakeman March 22, 1882; was promoted to passenger conductor on his birthday, Dec. 19, 1885. This year he expects to round out his 50th year of continuous service as conductor, at which time he will be 82 yrs. old!

Brother Hill is now operating local trains between Wilmington, Winchester and Boston, Mass. He has a rugged New England constitution, walks several miles a day, and gets a big kick out of work. These walks, plus his enthusiasm for railroading, are keeping him young.—CHAS. F. FALES, Box Q, Waltham, Mass.

* * *

CAN any one beat this speed record for a milk train? The train is No. 42, designated on the D. L. & W. timetable as "Milk." Recently, I was riding this train, having gotten on at Netcong, N. J. We lost 6 mins. cutting in a car at Port Morris. We were 8 mins. late out of Dover and, believe me, we left town!

From Dover to Paterson is 25 miles. Timetable allows 30 mins. for the run at an average of 50 m. p. h. We roared through Paterson 22 mins. after we left Dover. Our speed for those 25 miles averaged 75 m. p. h. In that stretch are both 6 standing slow orders, all under 45 m. p. h., but we must have hit at least 80. We went into the curves wide open, with just enough air kicked under the wheels to steady us. I'll never forget the kick I got out of that ride, nor the feeling of admiration I felt for the hoghead. I'd like to hear from Lackawanna engine or train men.—MARCUS BECK, 315 W. 106th St., N. Y. City.

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THE Boston & Maine has been breaking records which ought not to be overlooked. Last May and June new 112 lb. rail was laid by 198 men between Rigby and Rockingham Jct., replacing 100 lb. rail, at an average of 696 rails per day. The greatest number in one day was 906, which broke the record set in '33 on the Portland Div.

Last June the Fitchburg Div. did even better in laying rail between Greenfield and South Ashburnham, Mass., 46 miles. The average was 845 and the greatest number laid in a day was 1,009 in 8 hrs. 55 min. actual working time! This, I believe, is the world's record for laying rail. Let other roads try to beat it!—J. F. NORTON, R. F. D., Shelburne St., Greenfield, Mass.

(EDITOR'S NOTE: *The Alton, using adzing machines to prepare ties for new plates, has found that rail-laying crews lay an average of 40 or 50 more rails per day with the machines than without them.)*

# Road Hogs

A YEAR ago I saw A. C. L. engine No. 1640 plow through a school bus, because of the bus driver's carelessness, at Crescent City, Fla. It was a pitiful sight; 12 children met death.

My father, "Cap" Hall Pellett, of W. University Ave., care of Ora Apts., Gainesville, Fla., wants to hear from old friends. He was a F. E. C. conductor. Used to run with Engineer Bob Holley, who was killed by his own engine in New Smyrna yards several years ago.—WM. PELLETT, R. 5, Box 9, Jacksonville, Fla.

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A BUS bound for Vancouver, B. C., struck a hole in a street at Seattle, Wash., the other day and overturned on a grade crossing. Seven passengers, members of a vaudeville troupe, were hurt. The bus accident blocked switching service on the Great Northern and Northern Pacific.

Just about the same time, a bus driver in Chicago, said to have been driving while intoxicated, crashed into a street car, injuring 4 women and 3 men.

Down in Franklin, Va., 8 passengers on a Halifax-Norfolk bus were knocked out by inhaling carbon monoxide fumes from a defective heater and had to be treated at a hospital.

Terrified passengers lay flat in the aisles of a Mt. Lebanon, Pa., bus which ran wild after a drive shaft had broken and smashed the air-brake tubing. The runaway careened down Banksville Road, smashing a fence and sewer, and landed on the muddy Saw Mill Blvd. traffic circle.

And on Nov. 21 there was a head-on collision of 2 interurban busses in Camden, N. J., with 11 persons injured.

Such accidents are common on highways but rare on railroad. The bus victims probably will use a train next time they feel like traveling. Health, comfort and itself are too precious to be entrusted to road hogs.—R. A. WALLS, JR., Seattle; B. BILLINGS, Chicago; R. E. PRINCE, JR., Norfolk, Va.; L. KROACK, Harrisville, Pa.

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CARRYING a 3-ton load which should have gone by rail from Philadelphia to New York, a 6-ton motortruck caught fire after crashing into the Penn Valley bridge of Bristol Pike near Morrisville, Pa., Nov. 13. The driver, Chas. Dellard, was burned to death.—E. H. SPRANGERS, 2550 W. Seltzer St., Philadelphia, Pa.

* * *

ON Nov. 13 I saw a "big hook" at work near the Southern Pacific station in Santa Barbara, and about half the town's population watching it. The tender of freight locomotive No. 2859 had been derailed in an encounter with a "road hog" oil tanker and trailer hauling 2,900 gals. of crude oil which should have been shipped by rail. The

tender was smashed in such a manner it was impossible to pull her back onto the tracks, thus blocking the main line until the big hook arrived from Los Angeles. No one was hurt, but oil was smeared all over the crossing. The freight train crew consisted of Engineer H. Davis, Fireman J. E. Leboun, Conductor C. H. Dennen and 2 brakemen, all of San Luis Obispo.—L. A. BARTHOLOMEW, 715 Bath St., Santa Barbara, Calif.

* * *

I HAVE newspaper clippings of 43 bus accidents in which 105 persons were killed, 282 injured. I started saving these Feb. 28, 1934, when a Columbia night bus crashed into an auto. The clippings include an accident in Ossining, N. Y., 19 deaths; one in Virginia, 8 deaths, 40 injuries; one in Spain, 18 deaths; one in Poland, 18 deaths. If you can use this material I'll send it.—L. BAKER, 1110 W. 61st St., Los Angeles.

(EDITOR'S NOTE: *No, thanks, Mr. Baker; we've decided to attack the busses and trucks from other angles, as you will note in our series of articles by Geo. L. Phillips. There are too many highway accidents; we can't spare space to print any more of 'em.)*

THE San Joaquin & Eastern R. R. is no more. It was torn up about a year ago. Rails and rolling stock are stored in the yards at Auberry, Calif. While in operation, the S. J. & E. ran from El Prado, where it connected with the S. P., to Big Creek, Calif. It had 12 locos and several passenger and freight cars. The S. Calif. Edison Co. built it to ship supplies on a power project.

Passenger trains were operated several years. This service was given up and freight service continued until abandonment. Another case of trucks and busses freezing out the small railroad! —DAVID BLAINE, 2025 Fletcher Ave., S. Pasadena, Calif.

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"A TRIP THAT COST $2,000,000" (Dec. issue) was highly interesting. The author says that rails of the ill-fated Huron Bay & Iron Range R. R. were used to build the Detroit United Ry., an electric line. This, too, was an unfortunate venture. A few years ago junk men got it. Trucks and busses on government-supported highways finished the D. U. Ry.—B. J. STEGER, 711 Locust St., Toledo, O.

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# The New Million-Dollar Streamline Car

**THE so-called "Million-Dollar Car," one of which was recently placed in operation on the B.-M.T. surface lines in New York City, embodies principles and equipment developed by or for the engineering staff of the Electric Railway Presidents' Conference Committee. It is intended to provide the operating performance which the Committee's investigations indicated as necessary in a modern rail vehicle. Approximately a million dollars was spent in developing the new car. Requirements to be met were:**

**(1) Motor and control equipment which would provide a degree of agility comparable to that of modern automobiles and which would permit high acceleration rates to be achieved so smoothly as to avoid discomfort to standing passengers.**

**(2) Braking equipment which would permit high schedule speeds to be obtained with adequate safety in congested traffic.**

**(3) Simplicity in the operation of control and brakes which would enable the operator to handle his car smoothly and with confidence while utilizing its full performance ability.**

**(4) Elimination of noise and disagreeable vibration.**

**(5) Body structures having maximum strength and rigidity consistent with minimum weight and construction cost.**

**(6) Attractive exterior and interior body design combined with modern seating, illumination, heating and ventilation.**

**The purpose was to obtain an urban rail vehicle capable of holding its own against automobiles and busses in the contest for public favor and patronage. It was built by the Pullman Car & Mfg. Corp., which made somewhat similar streamline cars for the surface lines of Chicago, Cleveland and other big cities.**

**The Chicago car weighs 29,600 pounds and is approximately 40 per cent lighter than those in use today. Upholstered seats are provided for 58 passengers. An improved ventilating system gives fresh air in all seasons, cooled in summer and heated in winter. Indirect lighting of high intensity is furnished by a ceiling trough. Four 60-horsepower, 300-volt high-speed motors provide ample power for a quick pickup.**

**Braking is done by a combination of air devices: using the motors to generate electric current and also braking by magnetic shoes sliding on the rails. These systems are controlled automatically by a device known as a retardation controller. The brakes**

*Photos from Pullman Car & Mfg. Corp., Chicago, and B.-M.T. Corp., N. Y. City.*

**Two Examples of the New "Million-Dollar" Streamline Car. No. 4001 (Above) Is Running in Chicago. The 5300 Is Operated by the Brooklyn-Manhattan Transit Corp in Brooklyn, N. Y.**

are equipped to maintain uniformly any desired rate of braking up to a maximum of 4¾ miles per hour per second.

Automatic acceleration is attained by a new type of controller which steps the car up after the power is applied at rates varying from 1½ to 4¾ miles per hour per second, according to the speed required by traffic conditions. An acceleration and braking rate of nearly twice that of the standard car now in use is possible because automatic control assures smoothness in operation.

The exterior of the car is striking in appearance. It has graceful lines in keeping with the modern trend toward streamlining and is finished in a light royal blue color combined with aluminum and black striping. The interior finish is of sheet aluminum, including the ceiling, which is of special arched shape, meeting in the center with a duct for circulation of air.

# How Engine Builders Make Photos

By PAUL T. WARNER

Former Editor "Baldwin Locomotives" Magazine

*Photos from the Author and Locomotive Photograph Co., Box 6354, W. Market St. Sta., Philadelphia, Pa.*

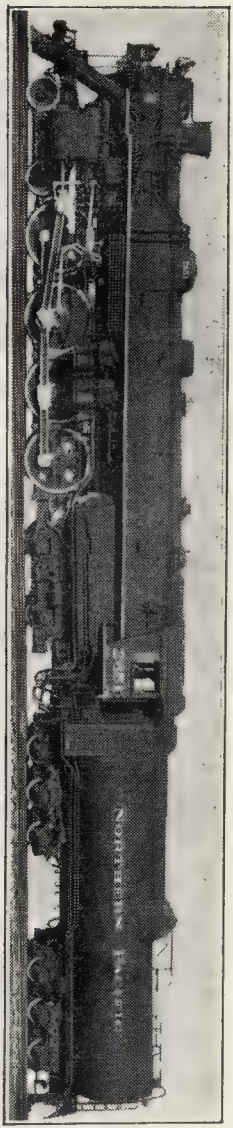
AT last collectors of locomotive photographs have reason to cheer up. For the past few years new engines have been few and far between, and even now prospects are not too bright; but a number of locomotives of unusual interest are on order or being built. The Northern Pacific, Lackawanna, Nickel Plate, Lehigh Valley, Pittsburgh & West Virginia, and Boston & Maine, are some of the roads which have recently received, or shortly will receive new power.

The most realistic kind of a locomotive picture is one showing the engine on the road hauling a train. But in such a picture many of the constructive details are necessarily lost. To any one interested in locomotive design a side view of the engine while standing is more satisfactory.

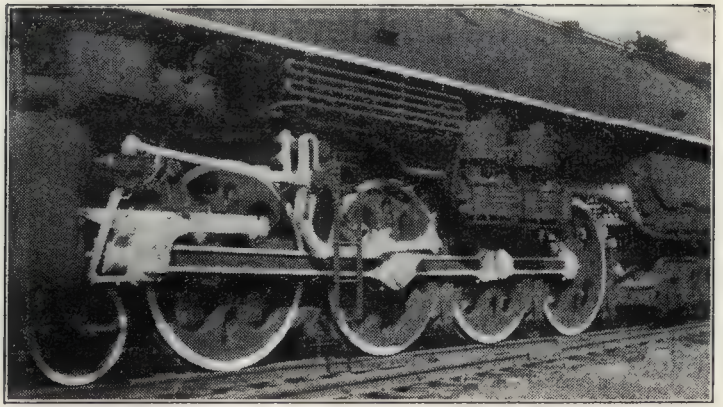
The builder generally takes such a photograph before the engine leaves the shop. If the order covers a number of duplicate locomotives, only one engine, preferably the first to be completed, is photographed. If the design is unusual a series of photographs is taken, including the right and left sides, the front and rear of both the locomotive and tender, and other special views.

When a number of duplicate locomotives are under construction, a photograph showing the completed cab interior of the first engine helps in locating the fittings on the succeeding locomotives. It is rarely that drawings are made showing the exact location of all the cab equipment; thus the photograph is usually the only record which shows the cab fittings as actually applied.

To obtain a really satisfactory photograph of a locomotive, quite a bit of preparation is necessary. The engine should be painted in a flat color without varnish, in order to avoid light reflections. This is a special job, which must be entirely washed off before the locomotive is finally painted for service. A good effect is obtained by painting the edges of the tires a light gray, as the wheels then stand out. Similar paint is often used on parts of the frames



Here is the Standard "Builder's" Photo of the Left Side of Northern Pacific's Giant Class A-2, 4-8-4 Type, Recently Completed by the Baldwin Works. Originally It Was Planned to Photograph No. 2650, the First of the Series, but She Was Rushed to the World's Fair as Soon as She Was Finished, and No. 2651 Was Picked to Have Her "Pitchur Took." (See Page 141)



Close-up of the Running Gear on N.P. No. 2651. Note the "Boxpok" or Spokeless Driving Wheels, and the Light Paint on Wheel Tires, Throat Sheet and Reciprocating Parts

or spring rigging, which would be entirely lost in the picture if left a dead black.

The modern American locomotive is usually painted a dead black, with little if any striping. Gone are the days of red wheels, "wine-colored" tanks, Indians on head lights, landscapes on cab panels, and brass boiler bands. Occasionally a special color scheme is called for, as in the case of the famous "President" locomotives on the Baltimore & Ohio, which were olive green with gold and maroon striping and gold lettering.

Foreign customers sometimes ask for special schemes, with elaborate monograms showing the initial letters of the road, or even Chinese or Japanese characters which must be exact copies of patterns furnished by the purchaser.

The illustrations show the photographer busy on one of the huge 4-8-4 type locomotives for the Northern Pacific, recently built at the Eddystone plant of The Baldwin Locomotive Works. There is a large yard outside the erecting shop, with plenty of track room, so that the locomotive can easily be placed in a favorable location.

Armed with my small camera, I was present at the time. The locomotive was moved out of the shop and spotted at various locations in the yard by one of the Baldwin switchers. The entire job included photographing the right and left sides, taking angle views of the front, special views of the locomotive and tender looking down from above, views of the interior of the cab and of the firebox, the last one being made by flash light. The following sizes of film were used in taking these pictures:

For the left-hand side, or "regular view," exposures were made on 6½"x8½", 7" x 11" and 12" x 20" film respectively. The prints made from the 6½" x 8½" film are trimmed down to about 4 x 7 inches, and this is the size most generally used. The 7" x 11" size is for reproduction, while the 12" x 20" prints are usually for framing.

The right-hand side of the locomotive was photographed on the 7" x 11" and 12" x 20" sizes, while all the other views were made in the 7" x 11" size only.

While the majority of the locomotives built today are of standard (4' 8½") gage, it is frequently necessary, especially for foreign roads, to build to other gages, the most common being one metre (3' 3⅜"). One of the tracks leading out of the Eddystone erecting shop is laid with five rails, spaced so that locomotives of almost any gage can be run outside.

An important detail in finishing a negative is to paint out the background with

opaque, so that the locomotive will stand out prominently in the finished print. This requires not only a steady hand, but also a knowledge of the construction of the engine; otherwise certain parts will be blocked out that should be left in the picture.

A photo, like everything else, is of little value if you don't know where to locate it; hence the locomotive builder maintains a complete system of filing negatives and prints. If for any reason a single locomotive, or a group of locomotives, leaves the plant without being photographed, the subsequent need for a picture is almost sure to arise. A few dollars spent on photography may later prove a true economy.

The steam locomotive is not yet obsolete, nor will it be for a long, long time; but it has reached a high point in its development, and now is a good time to work up a photograph collection. You can take them yourself; you can exchange or buy them from others. Collecting engine pictures is America's fastest growing hobby.

# International Engine Picture Club

SUGGESTIONS for members living in larger cities: Why not occasionally organize a Sunday excursion on some railroad which is offering a special rate that week-end? For example, last November 25th thirty members of the Railway & Locomotive Historical Society's N. Y. Chapter and several members of our club went down to Halethorpe, Md., where the Baltimore & Ohio has kept on exhibition its old-time engines, cars, etc., which it displayed at the "Fair of the Iron Horse" in 1927. Through the efforts of T. T. Taber, our fellow-member and Chairman of the Historical Society's N. Y. Chapter, the B. & O. reserved a special coach for the party and arranged to stop the train at Halethorpe, although everyone was traveling on a N. Y.-Washington excursion ticket which cost less ($3.50) than the usual one-way fare. It was the first time that any such trip has been taken out of New York City by railroad enthusiasts, but judging from the turnout, it will not be the last. What is more, it can be done elsewhere if enough people get together on the idea.

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B. L. AHMAN, JR., 3313 Westerwald Ave., Baltimore, Md., buys CNR negs. or trades others for CNR; 5-10 prints for each neg if prints preferred.

L. K. ALLEN, 209 Oglesby St., Salem, Ill., trades C&EI, Cotton Belt, Frisco timecards for what have you; write first.

D. F. ALLREAD, Sugar Grove, O., will pay good price for Jan. 1932 Railroad Stories; has ten 1934 copies to trade; write first.

F. E. ARDREY, JR., Box 503, Aiken, S. C., has 116 size of Southern, Ga., C&WC, ACL, SAL, CofGa, G&F, P&N, NKP 2-8-4 to trade.

H. O. BAILEY STUDIOS, 811 Cherry St., Philadelphia, Pa., has photographs of new NP Class A-2, 4-8-4 type. See page 143.

E. G. BAKER, Boulder City, Nev., has M&NA, M-K-T, UP, trade for SP 600 and NYC 4-6-4.

W. BARHAM, 6103 Elizabeth, St. Louis, Mo., wants lists of postcard photos for sale.

C. W. BARON, Box 432, Holliday's Cove, W. Va., will trade Official Guide (Aug. '33) for Railroad Stories or what have you.

J. R. BELL, 1114 S. San Joaquin St., Stockton, Calif., has company, brotherhood magazines, sell or trade for engine photos or Railroad Man's before 1919.

G. BENNETT, 28 Harley St., Hanley, Stoke on Trent, Staffs, England.

R. BENNETT, 1822 Columbus Ave., Bay City, Mich., trades engine photos.

R. BIERMAN, 196B RFD, Hemet, Calif., wants issues of Railroad Stories before June 1933, pays 10c each but no postage; has clippings and Century of Progress souvenirs.

K. BIERSDORF, Cornelius, Ore., buys postcard Mallets.

H. L. BIGELOW, 48 Central St., Saxonville, Mass., wants photo or drawing of Boston & Worcester RR "Yankee."

W. BOERS, 12710 Ferris Ave., Cleveland, O., has many back copies of Railroad Man's, Nov., Dec., 1915; Jan., May, Aug., Nov., Dec., 1916; Jan., Feb., 1917; Jan., 1930; Railroad Stories: Apr., Aug.-Dec., 1932, June 1933, Dec. 1934, to trade for stamp collection or cachets.

S. BONDARENKO, 159 S. 2nd St., Brooklyn, N. Y., buys photos streamlined trains, any country.

F. BONKE, 2372 Amsterdam Ave., N. Y. City, makes pen and ink drawings of B&S power for B&S photos, negs., mech. drawings; exchanges B&S, Erie photos.

G. O. BOOTHBY, 19 Melbourne St., Portland, Me., has all types on B&M, MeC, postcards; also NH and B&A.

R. BUETTNER, 270 Shady Ave., Pittsburgh, Pa., has blue prints of C&O T-1, IC 2-10-2, ACL small 4-6-2; 1922 Locomotive Cyclopedia; for best offer in photos or money.

F. J. CAIRNS, Temperance, Mich., wants to hear from anyone with dope on Ann Arbor: pictures, history, items, rosters, timetables, etc.; has many of Toledo roads.

J. M. CALDWELL, Box 435, Wymore, Neb.,

**READERS who collect, buy, sell, exchange, or make pictures of locomotives, trains, cars, etc., are listed here as members of the International Engine Picture Club. There are no fees, no dues. Names are published in good faith, without guarantee.**

**A membership button is given FREE to those who send in a "Readers' Choice" coupon (page 143) and self-addressed stamped envelope. (If you live in Canada or any foreign land, enclose a loose 3c stamp from your own country instead of the envelope.) Address Engine Picture Editor, "Railroad Stories," 280 Broadway, New York City. Tell him what you want or what you offer.**

## Free Book for Rail Fans!

**A BEAUTIFUL new book, "Trails to Rails," by Carlton J. Corliss, has recently been issued by the Illinois Central. This book contains 48 very large pages of good quality paper, illustrated with 60 photos, maps and rare old prints. It deals with over 200 years of transportation progress in Illinois, particularly I. C. history. Facts and figures are presented in a way that anybody can understand and enjoy. Not a word of advertising.**

**Such a volume should sell for about 50c. But a copy will be given FREE—as long as the supply lasts—to everyone who writes to C. E. Kane, editor of "Illinois Central Magazine," Room 817, Central Station, Chicago, Ill.**

**Write your name and address plainly. Mention "Railroad Stories," but don't write to this magazine for your copy of the book. Don't ask for more than one copy!**

has train orders for Burlington's "Zephyr," Burlington pass of 1894, for best offer.

CANADIAN RAILROAD HISTORICAL ASS'N has formed photo exchange committee, co-operating with International Engine Picture Club. They want Canadian members (or other members desiring to buy, sell or exchange Canadian pictures) to send lists to committee. Upon receiving a want-list from a collector, committee will send him names of persons who can supply the desired pictures. Committee makes no charge except self-addressed stamped envelope. For further information write R. V. Nicholls, secretary, Exchange Committee, 2174 Sherbrooke St. W., Montreal, Canada.

H. E. CHAPMAN, Waterbury, Vt., will buy photos of rear end collision on CV at Waterbury, Dec. '33.

E. W. COOK, 35 W. Louden St., Philadelphia, Pa., has complete set Railroad Stories 1929 to date; also few old Railroad Man's, many company magazines, to exchange for good typewriter or best money offer.

D. G. COOKE, 310 Chestnut St., Roselle Park, N. J., wants PRR and NYC calendars.

L. F. CRAIG, 309 Spring St., Peoria, Ill., has list of World's Fair engines, also 116 size Rock Island, P&PU, C&IM, CB&Q, PT, C&NW, trade or sell 10c; dime for list and sample.

P. W. CRUIKSHANK, Urbana, Ill., wants Feb. '32, Nov. '33 Railroad Stories; has postcards of depots and stations.

F. J. CSORBA, 9111 Cumberland Ave., Cleveland, O., has 1923 PRR employees' timetable, 25c; also public timetables, 10c each, 3 for 25c; 25 for $1.

M. DAVIDSON, 1927 Irving Ave., Oakland, Calif., wants to hear from near-by picture fans.

S. P. DAVIDSON, 902 Swann St., Parkersburg, W. Va., has 20 B&O types, incl. 4-4-4, 4-6-4; more than 40 other roads, many 4-4-0, all 116 size, 3 for 20c, list on request.

T. C. DAY, 10 Lake View Ave., Beverly, Mass., wants B&M public or employees' timetable of 1919, 1915 or earlier.

C. DEMPSEY, Bristol, S. D., has 1 Aero Digest, 1 Airplane Hangar Construction, 6 Popular Aviation, 1 Polar Region scrapbook, 1 All About Engines, 9 bulletins on airplanes, 1 History of Am. Railroads, 1 Air Service Boys Over Atlantic. Will trade all for complete telegraph outfit with battery, 709-page ARA Book of Rules and 15 engine and caboose photos.

R. W. DENNO, 17 Cascade Ave., Lowell, Mass., trades Eastern Mass. St. Ry. transfers for others.

P. V. DOBBINS, 139 Elm Ave., Rahway, N. J., trades negs. of RV, M&E, others within 25 miles of N. Y. City for negs. of other roads, pref. 116 or postcard size. Has many photos 3 for 10c or trade for one neg.; list and sample 10c; 1930-1934 Official Guides, $1 each.

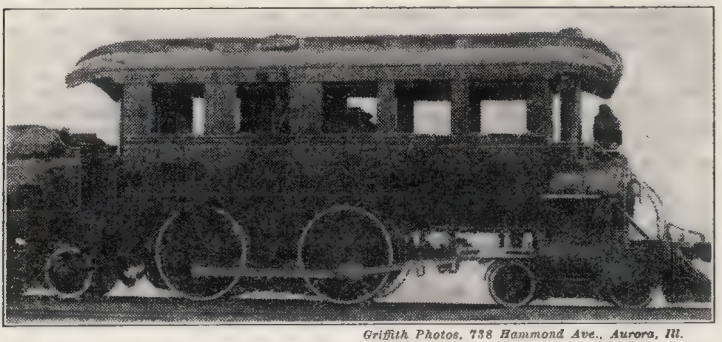
C. F. DRAKE, 2412 E. 2nd St., Wichita, Kans., has New Zealand Rys. mags. Sept 1932-Feb. 1934, trade for photos or what have you; wants MoP timetables before 1910.

M. DUNCAN, 707 9th Ave., Seattle, Wash., will send 12-page Illustrated Engine News for 5c.

H. EBERT, 6 Broadway Ave., Toronto 12, Ont., Canada, has 116 and 122 sizes of CNR (35 prints), CPR (43 prints), TH&B (12), T&NO (5), to trade for other old Canadian photos or sell 10c each., $1 a dozen.

F. EHLERT, 7936 Clyde Ave., Chicago, Ill., wants photos western roads.

E. ELLIOTT, 201 Ave. H, Saskatoon, Sask., Canada, has 116 size incl. "Picnic Special"



*Griffith Photos, 738 Hammond Ave., Aurora, Ill.*

**This Classy Little Go-Buggy Was No. 24 of the N.Y.C., an Inspection Engine Built by Alco 30 Years Ago**

**How Engine Builders Make Photos—Upper Picture Shows a Baldwin Switcher Hauling N.P. No. 2651 out of the Shop to Be Photographed. Lower, The Photographer Has Set up His Camera on Top of a Box Car to Get a Special View of the New 4-8-4 Type**

2498, CPR No. 1, 10c each; negs. 7 for $1, or trade for calendars, builders' photos, postcards, other clear negs.

F. R. EMMERT, RFD 1, Philo, O., will buy Railroad Man's 1906-1919.

E. ENGLEHARDT, 633 S. Lawn Ave., Coshocton, O., wants used copy History of B&O by Hungerford, also photos of 1830-1860 B&O engines.

H. L. FAIRCHILD, 807 27th St., San Pedro, Calif., trades clippings or prints; passenger timetables for engine photos.

W. FANCHER, Morrisville, Vt., wants B&M power 1898-1909 taken before 1910; has photos to trade.

D. W. FURLER, 65 Glenn Ave., Glen Rock, N. J., has excellent 8 x 10 of Raritan River Nos. 5, 11-15; 3 for $1, 6 for $2 postpaid; has 8 x 10 and 4 x 10 of Erie at 40c and 20c each resp.; many other 116 size.

B. GEDDES, 311 Mesnard St., Hancock, Mich., has 116 size DSS&A, Copper Range; buys, sells, trades; write.

G. HALLENBERG, Sergeantsville, N. J., has timetable of Ohio & Miss., 1833, with map, picture; also PRR Guide Book, 1873; write.

M. H. HANSON, Sister Bay, Wis., wants 116, 120 photos of all types street cars of defunct C&IT, car barns, sub-power stations; has railroad and detective fiction mags. to trade.

H. W. HARVEY, 158 W. 74th St., Chicago, Ill., has few old builders' photos to trade for modern ones, esp. IC 7000, modern switchers, any road; write.

C. HAYDEN, 6313 Normal Blvd., Chicago, Ill., has complete set of 20 old locomotives at World's Fair, 25c each, $4 set (large size).

S. K. HAYWARD, 1721 W. 5th Ave., Gary, Ind., specializes in Milwaukee Road; wants its pass, timetable before 1914.

S. R. HAVENS, Box 1361, 25 South St., N. Y. City, collects and exchanges transfers, maps transportation lines.

B. HEBERGER, 174 Remington St., Rochester, N. Y., has 30 detective mags. to trade for Railroad Stories Oct. 1931-April, June, Aug., Oct. 1932; Feb.-April & Dec. 1933.

E. S. HEERCOMB, 11 N. Regent St., Wilkes-Barre, Pa., has 3¼ x 4¼ of LV, PRR, D&H, CRRofNJ, exchange for trains of west and southwest.

C. H. HOFFMANN, 3642 N. Lotus Ave., Chicago, has prints of new NP 2650, incl. close-up of Boxpok wheel, 10c each, 6 for 50c.

M. T. HOVDET, R. 4, Butterfield, Minn., will pay 25c for a CStPM&O Eastern Div. Employees' timetable; write first.

INTERSTATE TROLLEY CLUB, 377 Clinton Ave., Brooklyn, N. Y., just been formed, has monthly bulletin and photo, $1 a year, W. P. Hamilton, president.

W. JANES, RFD 1, Franklin Fce, O., wants photos of C&O, GN, N&W; also employees' mags., passes, timetables, negs.; has 200 fiction and N&W mags to trade or sell.

G. S. JOHNSON, 402 Newton St., Salisbury, Md., exchanges, buys, sells old train orders, rule books, passes, tickets, RPO postmarks, etc.

J. B. JOHNSON, 71 Hillcrest Ave., Trenton, N. J., sells PRR, RDG, CNJ, M&E, TRR, UTCo, RRRR, RV, L&NE, etc.; send for list.

A. KAFARSKI, 2665 River Terrace, River Grove, Chicago, Ill., wants Loco. Cyclopedia, trade for Poor's Manual 1923 or buy; send stamped envelope for list World's Fair snapshots.

W. A. KARL, 2616 S. Adams St., Peoria, Ill., has many World's Fair postcards; send one or all free to anyone writing as long as supply lasts.

W. V. KENNEY, 90 Walworth St., (Ros.) Boston, Mass., wants photos of third-rail cars between Bristol and Hartford, Conn., about 1900; write, state price.

C. L. KELMAN, 420 W. 60th St., Chicago, Ill., has 500 clippings, Chicago transfers, fare tokens. Also check from SP (1923) for sale; what offer?

J. LAVELLE, 4615 66th St., Woodside, L. I., N. Y., recalls offer made in last month's issue. It will not be good after Jan. 5, 1935. He also announces 10-sheet list of postcard photos, free.

L. R. LAWRENCE, 13032 7th St., W., Seattle, Wash., interested in engines, trains, schedules of northwest.

W. LEE, 809 N. S St., Chariton, Iowa, has 10¢ engine photos, many train orders, clearance cards, exchange for photos of RI, Milwaukee, Burlington.

R. LEIP, 1128 Hamilton Ave., Trenton, N. J., has photo of PRR first electric, 5 x 7, 20c.

C. E. LEWIS, JR., 255 Highland Ave., Downingtown, Pa., wants employees' or public timetables of L&NE and M&StL.

E. LIENHARD, 148 E Kenilworth Ave., Villa Park, Ill., has 116 size to sell or trade of many mid-western roads; wants western and southern; send list.

O. A. LINKLETTER, Box 158, Beaumont, Calif., exchanges employees' timetables.

A. J. MACE, Ridge Rd., Stemmers Run, Md., will send 15 Baltimore transfers for one engine picture; interested 4-8-2, 4-8-4 types; wants CPR 4-4-2, CGW engines and trains; engine drawings.

N. MORANT, Hotel St. Regis, Winnipeg, Canada, will sell 35 mm. or 16 mm. motion picture of CPR train in Rockies.

W. McCALEB, 1382 Lakewood Ave., Lakewood, O., wants good street car, interurban photos; has many, write for list and prices.

W. W. McCLEARY, JR., 537 N. Plum St., Lancaster, Pa., buys and sells old and new photos 116 size; 15c cash for list and sample.

E. McKEE, 1622 Jackson Ave., Wichita, Kans., wants public timetables all roads, steam and electric negs.

T. MILLAR, Box 584, Estevan, Sask, Canada, will sell whole collection; write.

E. MILLER, Petersburg, Ind., pays cash for negs. of B&O and subsidiaries; has many others to trade.

J. H. MILLER, 499 N. State St., Marion, O., has many Hocking Valley and CD&M electric; wants old Ohio steam car roads.

V. G. MILLER, 218 Bradford St., San Francisco, Calif., wants early Wabash photos, buy or trade.

M. MONSEN, 1404 N. Leamington Ave., Chicago, Ill., wants photo of Milwaukee and NYC Hudson types, front and side views.

R. A. MORRIS, 6653 Colonial Rd., Brooklyn, N. Y., will pay $1.50 each for original NYC calendars for framing; "When Winter Comes" and "Thoroughbreds" only.

B. E. MOULDER, 2531 Amherst Ave., Butte, Mont., has NP new 4-8-4, also others.

C. A. NICHOLS, 11 Downing St., Providence, R. I., trades car and bus transfers.

J. OLIVER, 3101 Kenwood Ave., Indianapolis, Ind., wants to hear from stamps and engine picture collectors.

H. OLSEN, 5507 8th Ave., Brooklyn, N. Y., wants old trolley cars from BRT, Brooklyn City and Public Service.

R. M. PARKE, 4151 School St., Chicago, Ill., has World's Fair engines 116 size 10c each or trade for narrow gage old-timers.

R. H. PERRY, 262 Union St., S. Portland, Me., wants Jan.-Mar. 1930 Railroad Man's.

R. PETERSON, RR 3, Belvidere, Ill., wants Dec. 1929, Feb. 1931 Railroad Man's.

W. N. PIGEON, Worcester St., N. Grafton, Mass., has all B&A types to trade.

D. L. PIKE, 231 Castle Rd., Nahant, Mass., has many NH "19" and "31" orders and employees' timetables to trade.

H. O. PREBLE, 353 Front St., Bath, Me., has Official Guide at $1; 1000 MeC train orders and 146 timetables, 5c each or trade for B&M, MeC engines, Milwaukee 6400 series; also has 6 MeC and 2 PT employees' timetables, 15c each.

E. RATZ, 2819 Shenandoah, St. Louis, Mo., has Railroad Stories 1929 to date to trade for Railroad Man's 1906-1919. Trades and sells street car, bus pictures, transfers; send for list.

J. J. REILLY, JR., 1408 N. Corlies St., Philadelphia, Pa., has many trolley views 8 x 10; wants engine photos of Baldwin Locos., esp. Oct. 1924.

M. D. ROEPKE, 428 E. Locust St., Milwaukee, Wisc., has C&NW employees' timetables of Lake Shore and Mad. Divs.; trade for Middle and Pitts. Divs. PRR.

H. R. SADLER, 5025 Market St., Philadelphia, Pa., starting; send lists.

C. D. SAVAGE, 2829 N. E. Hancock St., Portland, Ore., buys SP public timetables before 1930; western interurban fans, write.

H. SCHLICTING, 1645 N. Lockwood Ave., Chicago, Ill., has 2¾ x 4¾ of World's Fair engines at 15c each.

J. A. SNOOK, 116 N. Vine St., Elkhart, Ind., has hundreds of mags., books to trade for old Railroad Man's or what have you.

R. SPEAR, 26 West St., S. Weymouth, Mass., has 2½ x 4¼ negs. of B&M 653 and 3236, trade for modern photos; LS&MS 2-6-2 trade for 2 modern photos.

E. H. SPRANGERS, 3550 W. Seltzer St., Philadelphia, Pa., has street car transfers, matchbox tops, Railroad Stories from 1930, trade or sell.

K. M. STOWE, 707 W. Julian St., San Jose, Calif., has SP W. Div. 1934 timetable trade for SP, UP, NYC photos.

*Photo by K. Umesaki, Ikuta-kata, 4,3-chome, Naka-okachi-machi, Shitaya-ku, Tokyo, Japan.*

**The "Cherry Flower Limited," Japanese Gov't Railways. Hauled by Pacific Type C-5311, Which Is 3½ Ft. Gage, Has 17¾ x 26 Cylinders, 200 Lbs. Pressure, 65-In. Drivers, Exerts 30,000 Lbs. Tractive Force**

F. SVISON, Gen. Del., Trail, B. C., Canada, buys CPR locos.

R. S. SWAIN, 4217 N. Keeler Ave., Chicago, Ill., buys prints from all small Illinois roads; write for lists.

D. W. SWARTZ, Michigan State San., Howell, Mich., buys photos of NYC&H, LS&MS, MC, NYC, freight, pass., 1880-present. Has chart of NYC Hudson type to trade for photos.

F. TRACY, Box 107, Farmingdale, Long Island, N. Y., has several hundred system passes, 1930-1933, to sell at 10c.

D. R. VILLEE, 732 Hamilton St., Lancaster, Pa., trades timetables; wants Santa Fe, C&NW, CB&Q, others.

T. VON TROTT, 101 W. Rittenhouse St., Philadelphia, Pa., has 142-page Phila., Wilmington & Balto. RR Guide 1856, and Coulton's Routebook of the U. S., 1856 (rare); what you offer in exchange?

C. WATERBURY, 115 N. Washington St., Elkhorn, Wis., has a 20-ohm telegraph instrument with $1.50 instruction book for sale or trade; also (8 x 22) framed left side view of CM&PS Class A, 4-4-2, now Milwaukee 3507.

F. E. WHEDBEE, Seabrook, Md., has many Employees Journals, Ry. calendars (back issues), Railroad Stories, Official Guides, RR books on loco operation, and employees' timetables, sell or trade.

A. M. WHITAKER, 11 California Place, Charleston, W. Va., buys or trades C&O or Va. Mallet for following: D&H 652, 653; NYNH&H 836; Reading 675, 676; SP 3769 or any large power.

A. WIDENER, R. 1, Washington, Ind., wants B&O (Ind. Div.) employees' timecard before 1916, and photo of C&O engine taken 1900-1904; trades pictures, timecards.

H. C. WILSON, 7 Belmont St., Westfield, Mass., has 50 back copies Railroad Stories and 24 detective mags.; $10 the collection.

C. W. WITBECK, 1319 Harvard N.W., Washington, D C., has 616 size of B&O 4-4-4, 10c each or 3 for 25c.

J. G. WOODBURY, 374 Yarmouth Rd., Rochester, N. Y., buys prints of abandoned Plattsburg Traction and city cars.

N. B. WOODS, 22 Grant St., Brantford, Ont., Canada, has postcard of German Zeppelin train, 20c; send for list.

R. WOODSIDE, 705 S. James St., Rome, N. Y., is owner of photo printed on p. 57, of our Dec. '34 issue, credited to Reise by mistake.

S. YAMALIDES, 171 32nd St., Brooklyn, N. Y., wants photos of modern steam cab interior.

S. ZICK, 718 Linden St., Waukesha, Wis., trades 116 or 120 size photos; beginner.

**RAILROAD STORIES** Reader's Choice
**280 Broadway, New York City**

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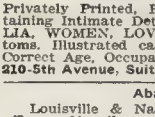

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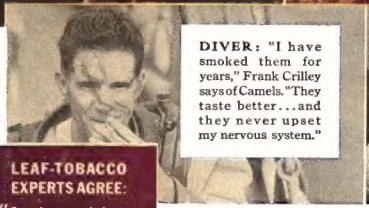
● Mrs. William LaVarre, the daring American girl explorer, whose long-distance treks through the South American jungles have taught her the vital necessity of keeping up her energy reserve, says: "We took 30,000 Camels with us on our last expedition. Any time I'm tired, I just stop and smoke a Camel. Smoking Camels steadily, I find, does not affect one's nerves."



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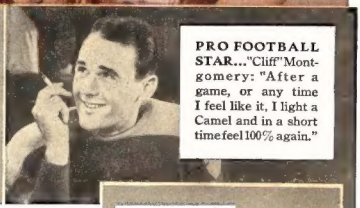

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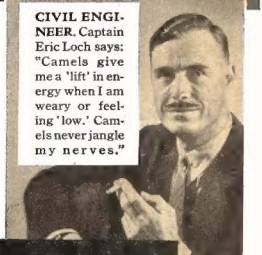

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